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MINISTRY OF HEALTH
DECISION BRIEFING NOTE

Cliff # 1133139

PREPARED FOR: Stephen Brown, Deputy Minister of Health - **FOR DECISION**

TITLE: Anesthesia Care Team Model

PURPOSE: s.13; s.17

BACKGROUND:
Ontario introduced the Anesthesia Care Team (ACT) model as a multi-phased demonstration project in 2007 to support stable and adequate access to anesthesia services in Ontario hospitals. The work was a join initiative of the Ontario Medical Association and the Ministry of Health and Long Term Care.

The main driver of the ACT project was the immediate need to address a shortage in anesthesiologists, a contributing factor to Ontario's growing surgical wait times, cancelled surgeries and operating room closures. This model is comprised of an interprofessional team, led by an anesthesiologist and supported by an anesthesia assistant (AA), together with additional health-care providers such as specially trained perioperative nurses and post anesthesia care unit (PACU) nurses.

The ACT model in Ontario was successfully implemented (refer to Appendix A: ACT Ontario Evaluation Outcomes) and continues to evolve to advance quality care and further system efficiencies. No other evaluations of the ACT model in the Canadian context are currently available; however, Quebec has also endorsed and funded an ACT model of care.

Over the past decade, BC has experienced similar challenges in recruiting and retaining enough anesthesiologists in both urban and rural settings (refer to Appendix B: Anesthesiologist Vacancy Listings) to complete the provincially modeled/required number of surgical procedures to meet wait time targets. This issue is further compounded by the evolving role of anesthesiologists to support both OR and non-OR settings such as pain clinics and pre-anesthesia assessment and post-care clinics. Moreover, there has been a reliance on a traditional physician-centric model, thereby precluding optimal use of roles within the care team to enable a sustainable anesthesia care delivery model.

To optimize surgical capacity, measures are being undertaken to address anesthesiologist shortages through the new provincial anesthesiologist contract currently being offered to physician groups by the health authorities. A key provision includes accountability from this group to ensure enough physician resources are in place to provide all of the services at the site. In addition, the contract states that the parties will develop joint human resource (HR) and recruitment processes, including monitoring and planning for short- and long-term HR trends; to date, one group has signed onto the new contract, although sign on of additional groups is anticipated.

DISCUSSION:

The Ministry of Health's (the ministry's) strategic vision of high-quality patient-centred surgical care within a sustainable health system proposes developing a service delivery model that improves access to anesthesia services and provides patients with a team-based approach to the delivery of anesthesia services in BC. The strategic policy direction to achieve this aim could support health authorities to collaborate with surgeons, anesthesiologists, nursing and allied health professionals along with the Ministry of Health to opportunistically explore options such as team-based practice as an alternative to the current model. This approach is reinforced by the ministry's service plan that commits to system and process improvements that optimize capacity and support surgical health care providers.

s.13; s.17

Approved/Not Approved
Stephen Brown, Deputy Minister

Date Signed 23/19

Program ADM/Division: David Byres, Associate Deputy Minister, Clinical Leadership
Program Contact: Joanne Maclaren, Executive Director, Nursing Policy Secretariat (778) 698-5063
Drafter: Carolyn Solomon, Manager, Nursing Policy Secretariat
Date: May 27, 2019

Appendix A: Ontario Anesthesia Care Team Model – Evaluation Summary

Anesthesiologist Data[i] Following Implementation of ACT

The optimization of the scope for health professionals within an ACT model of care contributed to a reduction in the shortage of anesthesiologists.

- In 2005, the actual number of anesthesiologists in Ontario increased by 12 per cent; however, at the same time, the number of anesthesiologists required also increased by 11 per cent.
- A complement of nurses and anesthesia assistants in the ACT team model corresponded to the work of an additional 16 FTE anesthesiologists, thereby decreasing the shortfall of anesthesiologists.

Cost Reductions

Cataract surgery: reduction in unit cost per case post-implementation of the ACT model. The approximate annual cost savings of $132,000 per OR:

Number of ORs	Pre ACT	Post ACT	Difference*
1 OR (2,400 cases)	$444,000	$312,000	-$132,000
2 ORs (4,800 cases)	$888,000	$624,000	-$264,000
3 ORs (7,200 cases)	$1,332,000	$936,000	-$396,000

*Post minus pre

Hip & Knee replacements: reduction of almost $2000 per case:

Cost Element	Pre ACT	Post ACT	Difference*
Anesthesiologist	$500	$500	$0
Anesthesia Assistant	$0	$125	$125
Medication	$18	$18	$0
PACU	$100	$60	-$40
LOS	$12,000	$10,000	-$2,000
Implants	$1,000	$1,000	$0
OR Suite Labour	$550	$550	$0
OR Suite Materials	$200	$200	$0
Total	**$14,368**	**$12, 453**	**-$1,915**

*Post minus pre

Quality and Safety Outcomes[ii & iii]

- High degree of acceptance and strong support from the anesthesiologist community.
- Overall increased efficiency: PACU time and hospital length of stay (LOS) were shorter with less variability.
- Increase in number of cataract, hip, and knee replacement surgeries completed.
- No increases in serious adverse events.
- No safety concerns with the implementation of the ACT at these hospitals, in the settings studied.

Appendix B: Anesthesiologist Vacancy Listings – May 16, 2019

Health Authority	FT/Permanent	Locum	Total
VIHA	6	1	7
VCH	6		6
Fraser	11	3	14
Providence	2		2
PHSA	2		2
Interior	10	2	12
Northern	2	1	3
FNHA			0
TOTALS	39	7	**46**

Note: Casual positions were excluded, and part-time positions were counted as 0.5 FTE

Source: Health Match BC. Analysis completed by Workforce Planning and Development, May16, 2019. Retrieved from: www.healthmatchbc.org/Jobs-in-BC/Find-a-Job?RegionIds=&ProfessionId=1&SpecialityId=3&SubSpecialityId=0&PositionTypeIds=1%2c2%2c3&CommunityId=&Show=list&SearchPage=0

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Appendix D: Perioperative Partners

INTERNAL:

- Senior Executive Team (SET), Ministry of Health
- Provincial Hospital and Laboratory Services Division
  - Acute & Provincial Services
- Specialized Services Division
  - Access Strategy
- Office of the Associate Deputy Minister
  - Nursing Policy Secretariat
- Health Human Resources and Labour Relations Division
  - Labour Relations & Special Initiatives
  - Professional Regulation and Oversight
  - Workforce Planning & Development,
  - Physician Services
- Health Sector Information, Analysis and Reporting Division (HSIAR)
- Government Communications and Public Engagement (GCPE)
- Ministry of Advanced Education, Skills & Training (AEST)

EXTERNAL:

- Health Employers Association of BC (HEABC), Physician Services Secretariat
- Provincial Medical Services Executive Committee (PMSEC)
- Leadership Council
- Chief Nursing Officer Council
- Health Authority VPs of HR
- Surgical Services Operations Executive Directors/ VPs of Surgery
- Doctors of BC
- Specialized Services Committee (SSC)
- British Columbia Anesthesiologist Society (BCAS)
- Family Practice (FP) Anaesthesia Network
- College of Physicians and Surgeons of British Columbia (and other regulatory colleges as applicable)
- University of British Columbia, Faculty of Medicine, Department of Anesthesiology, Pharmacology & Therapeutics
- Canadian Anesthesiologist Society (CAS)
- Canadian Society of Respiratory Therapists (CSRT)
- BC Society of Anesthesia Assistants
- BC College of Nursing Professionals (BCCNP)
- Nurses and Nurse Practitioners of BC (NNPBC)
- BC Nurses Union (BCNU)
- Health Sciences Association
- Other professional associations and unions
- Patient representatives

[i] Report and Recommendations of the Operative Anesthesia Committee. (May 2006). *Transforming the Delivery of Anesthesia Services in Ontario*. Retrieved from: www.hprac.org/en/projects/resources/hprac-nursingresponse_cnoomaareport.pdf

[ii] ACT Implementation Advisory Committee. (2009). *A plan to evolve the anesthesia care team model in Ontario*. Retrieved from: www.crto.on.ca/pdf/Misc/Anesthesia_Care_Team_Ontario.pdf

[iii] Martin, D. G. (2014). The Evolving Roles in Anesthesiology and the Team-based Model. *UBC Medical Journal*, 6(1), 21–23. Retrieved from: http://med-fom-ubcmj.sites.olt.ubc.ca/files/2014/11/ubcmj_6_1_2014_21-23.pdf

MINISTRY OF HEALTH
DECISION BRIEFING NOTE

Cliff # 1136500

PREPARED FOR: Stephen Brown, Deputy Minister of Health - **FOR DECISION**

TITLE: Ministry Funded Anesthesiology Fellowships

PURPOSE: To seek a decision on the establishment of fifth year anesthesiology fellowships

BACKGROUND:
Recruitment and retention of anesthesiologists remains a critical pressure point in BC. Despite focused recruitment efforts, anesthesiology supply issues remain. On June 3, 2019, the Deputy Minister of Health was briefed on a targeted new approach to recruit United States (US)-trained physicians through a fifth-year fellowship pathway including a return of service based on the following rationale:

- The Royal College of Physicians and Surgeons of Canada (RCPSC) and the College of Physicians and Surgeons of BC (CPSBC) accept several US Medical Licencing Exams in lieu of the Medical Council of Canada Exams. This reciprocal recognition enables a streamlined licensure pathway specifically for US-trained physicians.
- In the US, Accreditation Council for Graduate Medical Education (ACGME) accredited residency programs are four years. Without a fifth year of residency, US-trained physicians are ineligible to write the RCPSC exam which is a requirement for full licensure in BC.

Given the approach above, approval was granted to proceed with stakeholder consultations to determine the feasibility of the fellowship option.

DISCUSSION:
Consultations have subsequently occurred with the CPSBC, RCPSC, University of British Columbia Faculty of Medicine (UBC FoM), and Health Match BC (HMBC). The RCPSC provided its approval for a one-year fellowship used in lieu of the final year of residency training. Given this, CPSBC has also provided its approval with UBC FoM responsible for the training component.

UBC FoM has confirmed that no additional work is required around curriculum development as they would align the fellowship training requirements with the current entrustable professional activities (EPAs) and milestones for a final year resident in anesthesiology as set out by the RCPSC. This targeted approach will also enable physician integration into the Canadian health system, enable access to study groups, and prepare candidates for the RCPSC exam. Fellowships also present an opportunity to attach Return of Service (ROS) requirements that will help secure the supply of anesthesiologists in priority sites.

NEXT STEPS:
Following Ministry commitment to the establishment of fifth year fellowship positions, funding will be required to support UBC FoM to move forward with implementation of the fellowship positions. UBC FoM will need to collaborate with Health Authority (HA) partners on the distribution of the positions (Appendix B).

Fellowship requirements and Return of Service commitments will need to be finalized to enable positions **to be advertised for a July 1, 2020 intake**. All stakeholders will have a role in advertising and promoting the fellowships through comprehensive recruitment channels. **To attract a qualified pool of candidates, it is imperative to move forward on next steps with a final decision by September 1, 2019.**

OPTIONS:
s.13

Option 3: Establish Fellowships

Pros: Supports the Ministry's surgical commitments; pathway for US-trained recipients to BC; **opportunity to attach a return of service commitment**; opportunity to distribute fellowships provincially; enables US-trained physicians to meet the standard training requirement of the RCPSC for full licensure.
Cons: Requires HA capacity and support (Appendix B); Ministry resources required; potential political or legal risk if inequitable access to fellowship positions.

FINANCIAL IMPLICATIONS:
s.13; s.17

RECOMMENDATION: Option 3 with implementation of six fellowships to address urgent needs. Funding would need to flow to UBC FoM in 19/20.

Approved/Not Approved
(Stephen Brown, Deputy Minister)

Sept. 3/2019
Date Signed

Program ADM/Division: Mark Armitage, ADM, Health Human Resources and Labour Relations
Program ED/Branch: Kevin Brown, ED, Workforce Planning and Development
Drafter: Tanya Lorenz/Rebecca Swan
Approved Date: Mmm XX, 2019

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Appendix B – Proposed Fellowship Sites

Based on consultation with UBC

Site	Training Capacity
St. Paul's Hospital	2
Royal Columbian Hospital	2
Kelowna General Hospital	1
Surrey Memorial Hospital	1

MINISTRY OF HEALTH
INFORMATION BRIEFING NOTE

Cliff # 1136534

PREPARED FOR: Mark Armitage, Assistant Deputy Minister, HHRLR **- FOR INFORMATION**

TITLE: Activities to Address Anesthesia Supply

PURPOSE: Outline multiple activities that are underway to address anesthesia supply.

BACKGROUND:
Out of the commitment to address the care needs of British Columbians and reduce surgical wait times, the Ministry of Health (the Ministry) put forth a Provincial Surgical Strategy. The strategy focuses on reducing wait times for scheduled surgical procedures by implementing strategies to eliminate the backlog of waitlisted patients and meet ongoing surgical demand. Health human resource capacity remains a critical pressure point in this strategy with the greatest impact caused by the provincial anesthesiologist supply. To stabilize anesthesia services and meet capacity targets, the Ministry is engaged in multiple activities to alleviate these health human resource issues.

DISCUSSION:
Several measures are being undertaken concurrently to address anesthesia supply. By theme, the section below highlights each activity and the work underway (see Appendix A for further information):

Anesthesia Marketing and Recruitment through Health Match BC (HMBC):

- HMBC has repositioned itself to develop a robust, multi-faceted recruitment strategy to attract qualified anesthesiologists. The most recent plan includes digital marketing, social media, print advertising and targeted conference attendance.
- In terms of recruitment, HMBC reports 11 successful matches to permanent vacancies in BC since January 2019. There remain 43 permanent, full-time vacancies with 65 applications; 20 assessed and referred to the Health Authorities (HAs).
- HMBC is also actively recruiting Canadians completing their training in the US under a J-1 Visa. A J-1 Visa is a designated temporary visa for foreign national medical graduates who are pursuing postgraduate medical education in the US with the intent to return to Canada. In terms of trainees, Health Canada reports the following:

Specialty Training	2015 Issued	2016 Issued	2016 Issued	2017 Issued	2018 Issued	2019 Issued	Total
Anesthesiology	s.16						

- The numbers above are for residents in training and do not include individuals in fellowships. Therefore, the number is anticipated to be higher than reported.

Group Accountability Contract:

- s.17

-

Post Graduate Training, Licensure and Fellowships:

- BC's current number of UBC anesthesiologist residents is 54 (Anesthesia is a 5 year residency and there have been historically 11 first year seats, and this will be increased to 14 seats for the 2020/21 academic year).
- Working with the UBC Faculty of Medicine and the College of Physician and Surgeons of BC (CPSBC), the Ministry is exploring a targeted approach to recruit and retain US-trained physicians/J-1 Visa trainees.
- This approach includes training through a fellowship in lieu of a fifth year of residency. Anesthesiology residency programs in the US are four years in duration versus the five-year standard training requirements established by the Royal College of Physicians and Surgeons of Canada (RCPSC).
- This pathway would enable US-trained physicians to complete their RCPSC requirements and apply to write the full licensure exam in Canada; distribute anesthesia fellowships provincially; and, provide services directly to British Columbians during the fellowship year.
- s.17

s.13; s.17

and Anesthesia Assistants (AA)

s.13; s.17

- To support the supply and education for Anaesthesia Assistants in BC, an AA Education Project was completed over the last 2 years to identify practice and competency gaps, clarify and gain HA agreement on performance expectations, and develop a provincial standardized job description template. Recommendations from the project were accepted at the Joint Planning Board for Health and Medical Education in April 2019. The project report is being finalized and will enable improvements in BC's post-secondary sector and health authority partners to meet growing demands.

ADVICE:

It is recommended the above efforts be prioritized and monitored in the upcoming months.

Program ADM/Division: Mark Armitage, ADM, Health Human Resources and Labour Relations
Program ED/Branch: Kevin Brown, ED, Workforce Planning and Development
Drafter: Rebecca Swan/Tanya Lorenz
Approved Date: June 14, 2019
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MO INFORMATION BULLETS

Cliff# 1141772– *Honourable Adrian Dix, Minister of Health, re: Health Match BC Update*

REQUEST

- Overview of the repositioning/priorities Ministry of Health has established with Health Match BC

FINDINGS:

Changes to HMBC Organizational Structure

- Health Match BC (HMBC) has repositioned itself to provide a full-cycle recruitment system focused on sourcing, engaging, and connecting candidates with employers.
- To support this framework, HMBC adopted a distributed staffing model. HMBC recruiters are now located throughout BC. This model supports HMBC recruiters to facilitate better relationships with employers and foster positive candidate engagement at the local level.
- HMBC has increased the number of staff site visits to BC communities and is actively reaching out to employer partners to better align recruitment efforts.

Registrants & Matches during FY 2018/19

- HMBC received the greatest number of registrants in 2018/19 recorded within a 12-month period. There were 6,515 new registrants which was a **19% increase from FY 2017-18**.
- FY 2018-19 was also best year on record for overall matches (**a combined total of 465 matches; 289 physicians, 136 registered nurses; 40 allied health professionals**). This is an overall **49% increase from total successful matches recorded FY 2017-18**.

Candidate Sourcing & Marketing Strategy during FY 2018-19

- HMBC increased its recruitment activities across Canada with a renewed focus on sourcing recent graduates and IMGs new to or returning to Canada.
- s.16

- Health Match BC has embarked on a new approach to marketing, with an increased focus on digital advertising, social media, integrated multi-channel communications, direct candidate engagement and the distribution of key messaging online and in-person at recruitment events. This has led to a **37% increase in new website visitors** and the highest number of visitors in a 12-month period since its launch.

Anesthesiology

- HMBC has prioritized recruitment efforts for anesthesiology. HMBC is working with employers to ensure timely follow-up and interview processes and actively following up with candidates.
- Between Jan 1 – Aug 9, 2019, there have been **32** hires to anesthesiology vacancies.
- As of Aug 9, there are **61** vacancies posted on HMBC (**46** anesthesiologist & **15** GP-A).
- HMBC is currently supporting 30 candidates through the stages of the recruitment process
- MoH is currently receiving bi-weekly anesthesiology recruitment reports from HMBC.

Primary Care Networks

- HMBC is actively reaching out to new and eligible HMBC registrants to discuss PCN contracts and opportunities to generate awareness and interest.
- As of Aug 13, 2019, there are **47** active PCN physician vacancies and **10** Nurse Practitioner vacancies on HMBC website.
- Communities with active vacancies positions are: Fraser Northwest, South Okanagan Similkameen, Burnaby, Prince George, and Western Communities.
- Positions are posted upon community readiness. MoH is actively engaged with HMBC through bi-weekly teleconferences to understand progress to-date and identify barriers to be addressed.

Program area: Workforce Planning and Development Branch, Health Human Resources & Labour Relations Division
Date: August 15, 2019

MINISTRY OF HEALTH
INFORMATION BRIEFING NOTE

Cliff # TBD

PREPARED FOR: Honourable Adrian Dix, Minister **- FOR INFORMATION**

TITLE: Provincial Health Workforce Planning: Strategy and Next Steps

PURPOSE: To provide an overview of the *Provincial Health Workforce Strategy 2018/19 – 2020/21*, current actions and next steps

BACKGROUND:

In 2017/18, the Ministry of Health (the Ministry) and health authorities completed the second annual provincial health workforce planning cycle, a collaborative exercise intended to structure and coordinate diverse planning activities across the health system with the goal of aligning supply, mix and distribution of the health workforce to meet patient and population health needs.

Drawing on qualitative and quantitative submissions from health authorities, occupation-based supply and demand forecasts, stakeholder consultations and other research, the Ministry produced the *Provincial Health Workforce Strategy 2018/19-2020/21* and an accompanying data package.

In recent bilateral discussions with health authorities, the Ministry signalled that it would not re-initiate the annual planning cycle in 2018/19, but would focus on implementation of the workforce strategy and continuous improvement of the workforce planning process.

DISCUSSION:

Taking Action on Findings

The *Provincial Health Workforce Strategy 2018/19-2020/21* reflects a comprehensive approach to addressing priority issues facing the health workforce. It is also intended to support implementation of the Ministry's policy direction for the future of the health system by establishing a solid foundation for system-level action over the next three years.

The document provides an analysis of supply and demand gaps and multifaceted labour market challenges associated with thirteen priority professions and four service areas. It also outlines a set of provincial-level initiatives that reflect the complexity underlying the workforce issues, moving beyond the traditional responses of increasing educational spaces or providing financial incentives.

For example, strategies have been identified to optimize, support and retain the existing health workforce, including: building and supporting interdisciplinary team-based care,

promoting health and wellness in the workplace and increasing training for cultural safety.

Since the workforce strategy was drafted, the Ministry has commenced detailed work on many of the proposed actions. The approach to Anesthesia Services provides an illustration. Through the planning process, health authorities flagged persistent gaps in this area, with increasing need for anesthesiologists, anesthesia assistants and general practitioners with enhanced anesthesia skills.

Responding to these concerns, the Ministry is moving forward with comprehensive system-level support for anesthesia, including: development of a provincial contract approach to anesthesiologist compensation; a review of anesthesia care teams; expanded anesthesia training for specialists and general practitioners seeking enhanced skills; and enhanced anesthesiologist recruitment through Health Match BC.

Strengthening Collaborative Planning

Prior to 2016/17, British Columbia lacked a coherent, comprehensive and sustained approach to health workforce planning to align actions across the various levels of the system – point of service, health authority/organizational and provincial. Historically, workforce planning at the provincial level has tended to be issue-based and profession-focused while planning capacity, practices and outcomes at health authorities have varied considerably.

Recent improvements to workforce planning in BC are bringing greater structure and coordination to diverse planning activities to ensure that they are linked in support of the Ministry's strategic direction. Through the last planning cycle, the Ministry took incremental steps towards achieving the full vision for provincial health workforce planning and is moving the bar further in the current fiscal year by: reinforcing accountabilities and best practices, supporting health authority capacity building, broadening engagement, and addressing data gaps.

ADVICE:
Provincial health workforce planning provides a comprehensive, disciplined approach to understanding the dominant labour market challenges within the health system and the coordinated actions that should be taken to address them.

The Ministry should continue to engage with health authorities and other partners to update the current analysis and strategy while taking steps to reinforce planning capacity and support a collaborative workforce culture across the system. A shared understanding of the issues backed by a coordinated response will pave the way for progress on the Ministry's strategic agenda.

Program ADM/Division: David Byres/CIRE
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Drafter: Jess Bossert
Date: August 22, 2018
File Name with Path:

BRITISH COLUMBIA PROVINCIAL HEALTH WORKFORCE STRATEGY

2018/19 – 2020/21

Table of Contents

1. Executive Summary

This year's British Columbia Provincial Health Workforce Strategy reflects a comprehensive approach to addressing priority issues facing the health workforce. It is also intended to support the implementation of the Integrated System of Care-Target Operating Model, which sets the Ministry's policy direction for the future of the health system in BC. The model encapsulates a patient-centred, integrated system of primary and community care, with strong, clear links to specialized services for BC citizens across the province.

The Provincial Health Workforce Strategy is intended to enable the strategic policy direction of the health care system by establishing a solid foundation for system-level action over the next three years. This includes increasing workforce effectiveness through the deployment of interdisciplinary teams and optimization of scopes of practice for health care providers. At a minimum, the Ministry will complete an annual review of the strategy and, where appropriate, adjust course to respond to emerging challenges and opportunities.

The labour market for health providers in BC varies by geography and occupation. It is driven by a variety of multifaceted issues and challenges, from demographic change to workforce migration. Ensuring that BC has the right supply, mix and distribution of health providers to meet patient and population needs is of critical importance. Strategies to achieve this must reflect underlying workforce issues and, to be most effective, move beyond simply increasing educational spaces or providing appropriate financial incentives.

This document provides an analysis of supply and demand gaps and labour market challenges for each profession and service area. The intent is to inform workforce strategies and actions aimed at mitigating short and medium-term workforce imbalances while enabling the longer-term health care system strategic direction and workforce optimization. Based on the analysis, the Ministry has identified **thirteen priority professions** and **four service areas** as having labour market challenges that require provincial attention and monitoring.

Building on the data and information collected through the planning process, the 2018/19 Provincial Health Workforce Strategy provides a set of provincial-level initiatives for the health workforce to ensure patient and population health needs can be met now and in the future.

Some key themes identified include: the need to work with the Ministry of Advanced Education, Skills and Training (AEST) to ensure the provincial complement of health-related education and training programs is consistent with current health system direction; review and revision of staffing and employment models; establishment of new models of care; and optimization of scope of practice for certain professions.

A number of provincial-level initiatives have been identified to optimize, support and retain the existing health workforce, including: building and supporting interdisciplinary team-based care, promoting health and wellness in the workplace, increasing training for cultural safety and trauma-informed care,

and development of effective change management and leadership strategies at the provincial and regional levels.

2. Provincial Workforce Strategies

This document provides a broad analysis of the provincial health workforce through a cross-system lens with a focus on service priorities. It is intended to reflect and honour the extensive collaborative work that has occurred between the Ministry, health authorities and other stakeholders over the course of this year's planning cycle.

To respond to the issues and challenges that have been revealed and pave the way for health system transformation, the Ministry will undertake a series of actions over the next three years. The intent is to be able to meet health workforce demand and position high performing interdisciplinary teams to respond effectively to population needs across the province.

Strategy #1: Ensure that provincial training systems reflect anticipated demand for key occupations

1. Conduct an in-depth review of the supply sources for physiotherapists, occupational therapists, sonographers, health care assistants, nurse practitioners, paramedics and perfusionist. Recommend educational seat and funding expansion as appropriate.
2. Review educational model for general and specialty nursing as per recommendations from the Nursing Policy Secretariat.[1]
3. Review nursing education to ensure an adequate supply of nurse practitioners, licensed practical nurses and registered nurses with primary care skills.
4. Increase one-time funding for health care assistant training across BC.
5. Enhance entry-to-practice mental health and substance use skills across disciplines and provide upgrading opportunities for existing staff.

Strategy #2: Adopt a flexible, responsive provincial approach to recruitment and retention

1. Establish a provincial recruitment and retention fund to be managed by health authorities
2. Review and recalibrate key provincial recruitment and retention initiatives: Health Match BC, the Practice Ready Assessment BC Program and the BC Loan Forgiveness Program.
3. With central government, explore the differences between Facilities Bargaining Association and Communities Bargaining Association collective agreements to understand their impact on recruitment and retention.
4. Implement the Declaration of Commitment to Cultural Safety and Humility.[2]
5. Review and refine the primary care paramedic and advanced care paramedic employment models, focusing on opportunities to integrate full-time employment.
6. Create a provincial recruitment and retention plan for Indigenous health care providers.

[1] Ministry of Health: Nursing Policy Secretariat Priority Recommendations, 2018

[2] First Nations Health Authority, Declaration of Commitment, Cultural Safety and Humility in Health Services Delivery for First Nations and Aboriginal People in BC, 2015

7. Work with WorkSafe BC, SafeCare BC, HEABC, health authorities and other key partners and stakeholders to reduce the number and duration of short and long term disability claims.
8. Review opportunities to increase support for internationally-trained health workers transitioning to the BC health system.
9. Implement and monitor the National Standard for Psychological Health and Safety in the Workplace.
10. Implement the Ministry's Workplace Violence Prevention Framework[3]

Strategy #3: Optimize the roles of health care practitioners to increase their effectiveness within interdisciplinary teams

1. Develop parameters/models for team-based primary care that more fully integrate nursing, allied health professionals and other non-medical providers.
2. Develop transition processes/guidelines for primary care clinics moving to team-based care funding models.
3. Assess workforce impacts of primary care networks and patient medical home implementation.
4. Develop a policy directive for home support and professional scheduling processes for health care assistants (HCAs): a) to convert casual/part-time HCA positions to full-time; and b) for health authorities to regularize a percentage of casual HCA positions.
5. Finalize the plan and timeframe to implement the provincial model for perioperative nursing.
6. Ensure sufficient anesthesia resources are available to meet health system objectives for surgical services.
7. Investigate the use of virtual technology to extend services in key areas: Primary Care, Mental Health and Substance Use and Dermatology.
8. Review and update the perfusionist operational delivery model.

Strategy #4: Update funding and compensation models to support health system transformation

1. Develop flexible physician funding models (e.g.: Value-Based, Population-Based, Alternative Payments, Group Accountability Contracts and salary).
2. Review physician fee codes to support earlier integration of palliative care services.
3. Continue to develop and implement funding and compensation models for nurses in primary care practice.
4. Assess and where necessary negotiate health system strategic direction within collective agreements.

Strategy #5: Extend provincial workforce planning capacity

1. Develop workforce modelling and integrate longer-term supply and demand forecasting
2. Improve tools and best practices for understanding patient and population health needs at the community, regional and provincial levels.

[3] Ministry of Health: Workplace Violence Prevention Framework, 2017

3. Review and address systemic barriers to effective planning for physicians working in facilities and in the community.
4. Connect health workforce planning to other system-level planning activities.

3. Provincial Health Workforce Planning

British Columbia spends nearly $19 billion a year on health care, which is approximately 46% of direct provincial spending. The health workforce accounts for nearly 70% of government health spending.[4] In recent years, the growth in health system spending has outpaced population growth and this trend is expected to continue as demand for health services increases. The Ministry of Health is actively pursuing opportunities to increase effectiveness of the health workforce to ensure that patient needs are met within a sustainable funding envelope.

While the health service system has changed over the last 25 years, it remains focused on hospitals and independent physician practices. Home and community care and mental health and addiction services have expanded, but have been added on to the historical system, resulting in a fragmented and confusing health system that is often challenging to navigate, uncoordinated and inefficient. At the same time, changing demographics and population health needs have emerged as demand drivers that threaten system sustainability in the long term.

Recognizing the current challenges in the health system, and given the significant financial investment by government in providing health care services to the people of British Columbia, the Ministry of Health (the Ministry) has established a single, coherent and continuous provincial health workforce planning process with the objective of aligning the supply, mix and distribution of the workforce to meet patient and population health needs. This Workforce Strategy supports the implementation of an Integrated System of Care - a set of health system policies that lay out the strategic vision for a well-designed, easily understandable, accessible and integrated health system that works better for patients and providers.[5]

Strategic Context and Vision

Provincial health workforce planning aligns with the health system's strategic direction of expanding the use of interdisciplinary team-based care to optimize the workforce and ensure better access to care and health services.

The Integrated System of Care-Target Operating Model sets the ministry's policy direction for the BC health system. The model includes a patient-centred, integrated system of primary and community care, with clear links to specialized services for patients needing them. This vision contemplates system-level change in three areas: coordination and linkages across the health care system, different compensation and approaches to work design, and *optimization of the health workforce* supported by increased use of digital technologies.

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[4] Budget and Fiscal Plan 2017/18 – 2019/20, p. 134. http://www.bcbudget.gov.bc.ca/2017/bfp/2017_Budget_and_Fiscal_Plan.pdf. Accessed August 15, 2017. Updated 2015/16 health function expense = $19.203B; therefore, health compensation of $13.4B divided health function expense of $19.203B = 69.78%

[5] British Columbia. Ministry of Health. Integrated System of Care Policy Directives. September 2017.

The foundation of the integrated system of care is the delivery of person-centred primary care services by interdisciplinary teams. The objective is to support the transformation of family physician practices and health authority primary care clinics into team-based **patient medical homes** linked together through **primary care networks** to address the primary care needs of a community. The Provincial Health Workforce Strategy is intended to support and enable the policy direction of the health care system by setting out a clear vision and targeted actions for the health workforce.

British Columbia strives for a diverse, culturally safe workforce capable of meeting the health needs of all people and communities within the province. Achieving this requires a holistic view of the health workforce and a reflection of community objectives and values within planning systems and processes. A key example is the incorporation of objectives from the *First Nations Health Human Resources Tripartite Strategic Approach.* The result will be provincial, regional and community-level planning systems evolving to more seamlessly identify and act on First Nations and Indigenous health human resource needs.

Workforce considerations must be fully integrated within the broader health system planning and strategy development context. This document supports and achieves consistency with health system priorities and in doing so, reflects the Ministry's commitment to having a skilled, engaged and healthy workforce available to respond to patient and population health needs.

Purpose

The purpose of this document is threefold:

1) To inform associated programs and services *across government*. This includes working with the Ministry of Advanced Education, Skills and Training (AEST) to ensure that provincial investments in health education and training align with patient and population health needs.
2) To drive policy development, activities and decision-making in a number of areas *within the Ministry of Health,* and in collaboration with our key partners and stakeholders (e.g. HEABC), including, recruitment and retention initiatives and provincial workplace health and wellness programs.
3) To support implementation of the Integrated System of Care policy direction, from a health workforce perspective.

Provincial Health Workforce Planning Process

Building on lessons learned, the Ministry, in collaboration with key partners and stakeholders, has made significant improvements to the planning process, including the development of a provincial policy directive requiring the Ministry and health authorities to use a common methodology to understand the current health workforce and projected supply and demand for health providers.

Other methodological enhancements include:

- Greater collaboration between health authorities and the Ministry to ensure that system-level planning links to and is informed by the perspectives of strategic and operational leads.
- Use of the first iteration of a provincial health human resources forecasting model.
- Utilization of standardized data sets to support more reliable aggregation of health authority data at the provincial level.
- Explicit linkages to health system strategic priorities.
- A collaborative, profession-based labour market analysis process developed to provide more comprehensive insight into key professions.
- A structured, evidence-based approach to selecting Ministry priority professions.
- Broadening of focus beyond profession-based planning to include consideration of service areas that have workforce challenges.
- Collaboration with FNHA to integrate First Nations and Indigenous considerations in data collection and analysis.
- Health system stakeholder participation and engagement.

Inputs into 2018/19 Health Workforce Plan:

- **Template A (Quantitative – current state/projection)**
- **Template B (Qualitative – priority professions, strategic priorities, First Nations HHR)**
- **Labour Market Analysis (HCAs, PTs, OTs)**
- **Engagement sessions with strategic priority leads and stakeholders**

Document Components and Structure

Through the Provincial Health Workforce Planning process, the Ministry has identified **thirteen priority professions** and **four service areas** with labour market challenges that are under consideration for provincial action. These have been analyzed within the context of the Ministry's strategic priority areas: Primary Care Services, Adults with Complex Conditions and/or Frailty, Surgical Services, and Mental Health and Substance Use.

Section Three of this document, "The Health Workforce," provides a provincial overview of health sector labour market trends and issues, providing background to the analysis of the priority professions and service areas.

Section Four, "Health System Strategic Priority Areas and Priority Professions," provides an overview of the Ministry's strategic priority areas, along with associated priority professions and service areas. For each profession and service area, an analysis of labour market challenges is provided.

3. The Health Workforce

The Health Workforce – Provincial and Regional Overview

British Columbia's health sector is one of the largest and fastest growing components of the provincial labour market, employing a diverse mix of over 240,000 providers in a set of interconnected sites and workplaces that spans the public and private sectors. Since 2010, the public sector health workforce has increased by 19.3%, significantly exceeding growth rates in both the provincial population and the broader labour market.[7] Workforce supply and demand models developed for the health system and the province as a whole anticipate a continuation of this trend as demand for health services is influenced by British Columbia's growing and aging population. According to the BC 2025 Labour Market Outlook, the Health and Social Assistance Services sector is projected to offer nearly 150,000 job openings due to replacement and expansion, more than any other industrial group in the province.[8] The health care and social assistance sector is engaged in providing health care by diagnosis and treatment, providing residential care for medical and social reasons, and providing social assistance, such as counselling, welfare, child protection, community housing and food services, vocational rehabilitation and child care, to those requiring such assistance.[9]

Figure 1: BC Health Sector Employment[6]

Provincial Perspective

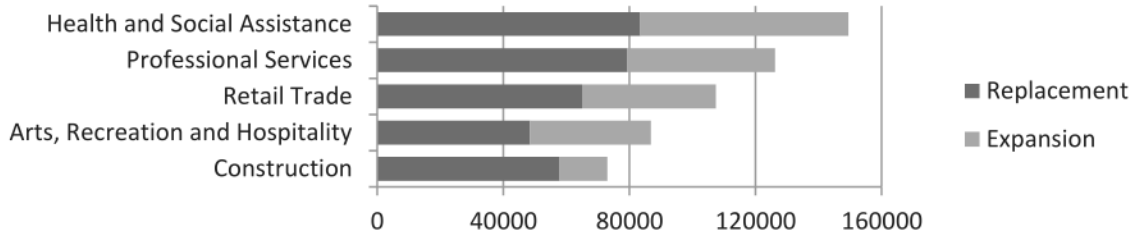


Figure 2: Ten-year total job openings by the top 5 major industrial groups (Source: BC 2025 Labour Market Outlook)

[6] Total Employment: Statistics Canada, Labour Force Survey. 2017 (Obtained through JTT); Nursing/Allied: HEABC data request. August 29, 2017; Physicians: HSIAR data request. March 20, 2018; Other/Private Sector=Total Employment – (Nursing/Allied + Physicians).

[7] HEABC data request. August 18, 2017.

[8] BC 2025 Labour Market Outlook. Retrieved August 16, 2017, from https://www.workbc.ca/getmedia/00de3b15-0551-4f70-9e6b-23ffb6c9cb86/LabourMarketOutlook.aspx

[9] WorkBC website, retrieved September 6th, 2017, from https://www.workbc.ca/labour-market-industry/industry-information/industry-outlooks/health-care-and-social-assistance.aspx

The public health system engages the services of 166,500 British Columbians – 109,000 work directly for health authorities in nursing or allied health, 32,000 are employed through the publicly funded affiliate system, approximately 11,500 are physicians, and 14,000 are managers or administrative employees. [10] A further 73,500 health care providers deliver services through the private sector.

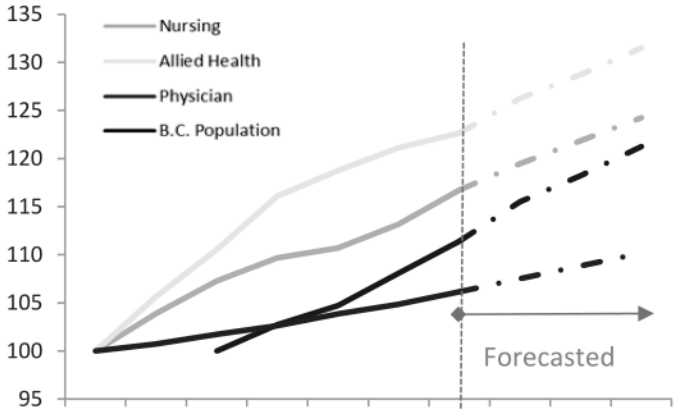


Figure 3: Public Sector Health Workforce vs. Population Growth
(Source: Provincial Health Workforce Forecasting Model)

Public Sector Health Workforce

Supply and demand projections within the provincial health workforce model include physicians, nursing and allied health workers employed directly by health authorities.

Figure 3 compares population and health workforce growth for major occupational groupings in percentage terms, using 2010 as the baseline.[11] As the figure conveys, physician, nursing and allied health supply numbers in BC's public sector health workforce have been increasing much faster than the provincial population in recent years. The provincial health workforce model predicts this trend will continue over the next three years. Whereas BC's population is expected to rise by 3.8% by 2019, the provincial model predicts nursing/allied health and physician workforce growth of 11.2% and 8.9% respectively.

While workforce projections are based on historic trends, future demand may be significantly influenced by changes to new models of care that include scope optimization and further deployment of interdisciplinary teams across the health system.

Affiliate Health Workforce

Many publicly funded health care services in BC are delivered through contracted third party providers, often referred to as affiliates. This group includes more than 240 denominational, proprietary and not-for-profit organizations that employ more than 32,000 workers. Affiliate employers are represented in the collective bargaining process by the Health Employers Association of British Columbia (HEABC). While there are systems in place to enable workforce data collection from these employers, there are known gaps in the data that has been collected in recent years. For this reason, the precise number of workers employed by the affiliates cannot be determined at this time.

Private Sector Health Workforce

While publicly funded and managed services anchor the provincial health economy, a wide range of complementary private sector services are available to support the health needs of British Columbians. These range from physiotherapy offered at community-based clinics to long-term residential care in

[10] HEABC data request. August 18, 2017. Data sources: HSCIS 2016 Q4 and MSP/APP 2015/16.
[11] 2010-2016: HSCIS; 2017-19: Provincial Health Workforce Forecasting Model

privately operated facilities. The cost of private sector health services may be covered through third party insurance plans, extended health benefits or paid directly by clients.

As noted above, a significant percentage of the provincial health workforce is employed in the private sector. The balance between private and public sector employment varies from one occupation to another; the Ministry recognizes that the provincial health services labour market is a shared resource influenced by both sectors.

Health Workforce – Labour Market Issues and Trends

The labour market for health providers in BC is complex and varies by geography and occupation. It is driven by a variety of multifaceted issues and challenges, from demographic change to workforce migration. Ensuring that BC has the right supply, mix and distribution of health providers to meet patient and population needs is of critical importance. Strategies to achieve this must reflect underlying workforce issues and, to be most effective, move beyond simply increasing educational spaces or providing financial incentives.

"The LABOUR MARKET is defined as: *the supply of available workers in relation to available work*. This basic supply and demand equation can affect everything from wage rates to investors' decisions to proceed with major projects". Labour Market Outlook, 2015, WorkBC.

Changing Workforce

The workforce is changing – BC now has more people reaching retirement age than entering the workforce.[12] An example of particular concern in the health sector is the aging of the care aide workforce, of which 26.4% of FTEs are 55 years or older. An additional 18% are between 50 and 54 years of age. [13] BC's 2025 Labour Market Outlook predicts that over the next ten years economic growth in the province will generate thousands of job openings. However, it is estimated that the replacement of retiring workers will generate over two-thirds of all job openings in the same time period.[14]

Maldistribution of Health Providers

Although rural and remote recruitment and retention has been frequently identified as a prevailing labour market issue for health employers in BC, aggregate full-time equivalent figures at the provincial level show a close correlation between the distribution of the health workforce and that of the general population (Figure 4).[15] The regional figures, however, mask other factors, such as sub-regional maldistribution, social determinants of health, and a lack of economies of scale that can result in inefficiencies in service delivery.

Like many jurisdictions, BC faces challenges with the recruitment and retention of certain health care providers in small urban, rural and remote communities. Recruitment and retention in rural and remote

[12] 2025 Labour Market Outlook. Retrieved August 16, 2017, from https://www.workbc.ca/getmedia/00de3b15-0551-4f70-9e6b-23ffb6c9cb86/LabourMarketOutlook.aspx

[13] HEABC data request. Care Aide – General HHR Statistics as of 2016 Q4

[14] Ibid 8

[15] 2017/18 Health Workforce Planning Submissions

First Nations and Indigenous communities remains a particular challenge. Many workers are attracted to larger centres because of the additional opportunities and services that they provide. However, there are challenges with cost of living, primarily in the Lower Mainland, which also can be a deterrent for some health care providers. Current strategies to influence workforce distribution are primarily based on financial incentives that may not be effective in the long term.

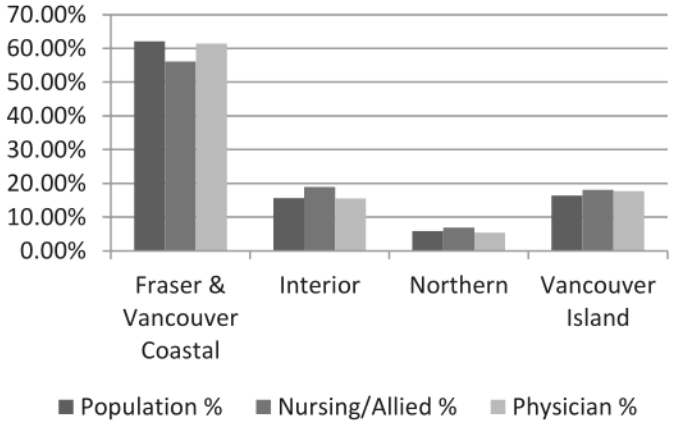


Figure 4: Provincial Health Workforce Distribution, 2016 (Source: HSCIS)

Parts of rural BC experience further challenges attracting and retaining workers in communities where the infrastructure (e.g., a hospital or a team of health care providers, jobs, schools and other programs for family members) is less developed than in other parts of the province. A related challenge for professionals is staying current and competent in their practice, as not every community requires full time health positions or provides opportunities for training and development locally. Moreover, the service needs of small communities often do not provide opportunity for compensation comparable to what could be realized in a larger centre due to a limited or geographically-distributed population base. This can apply equally to physicians compensated through fee for service and others working directly for a health authority or other health employer.

Workplace Health and Wellness

Illness and Injury Rates

The delivery of efficient and effective health services is dependent on having a healthy, well and engaged workforce. Ensuring that all health workers are provided with a safe and supportive work environment is a shared responsibility of both employees and employers across the BC health system.

Between 2011 and 2016, system-wide rates for all injury types remained stable. Residential care workers, however, were much more likely to be injured at work than their acute care colleagues, with an average of 9.8 claims per 100 FTE since 2011 (Figure 5).[16]

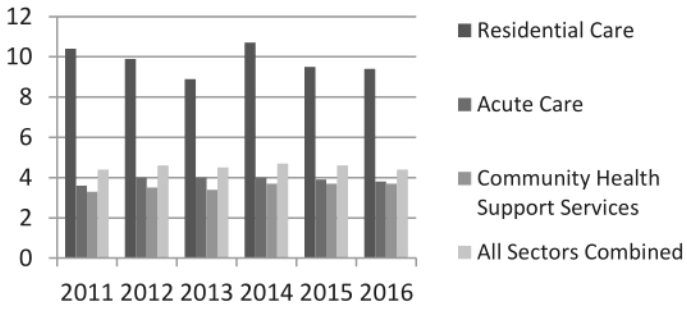


Figure 5: Annual injury rates per 100 full time workers, 2011-2016 (Source: WorkSafe BC Claim Data)

Health care assistants (HCAs) have the highest number of time-loss claims (7%)

[16] Based on WorkSafe Claim data

due to injury of any occupation in BC. Combined, HCAs, registered nurses, licensed practical nurses, social workers, home support workers, and paramedics represent 75% of all time-loss claims in the health care and social services subsector. Point of care interactions between heath care workers and clients pose the greatest risk of injury. The health care and social services subsector represents 12.5% of the worker population and 18.1% of all time-loss claims for all of BC. [17]

In general, long term disability claims have been steadily rising in recent years, from about 5700 in 2007 to over 7000 in 2016. There is significant variation in long term disability incidence from year to year and between health authorities. The five year average rate of individuals initiating a claim ranges from 10.9 per 1,000 employees at the Provincial Health Services Authority to 19.5 at Interior Health.[18]

Paid sick leave per full time equivalent employee increased by 6.4% between 2010 and 2016. This coincided with a rise in the proportion of workers aged 55 or over, from 20% in 2008 to 23.4% in 2014. After 2014, the trend reversed with the proportion of workers in this age category declining slightly to 23%. There is little variation in sick leave utilization by age among workers aged 30 to 54. Thereafter, leave rates begin to increase significantly.[19] Employers have a responsibility to ensure that workplace risks are mitigated. Reduction in absences due to injury and illness improve retention and increase supply of health professionals.

Workplace Violence

Health care providers are disproportionately impacted by workplace violence, both physical and psychological; they comprise 11.8% of the provincial workforce, yet account for 57% of all time-loss claims due to violence or force in BC[20]. Incidents of workforce violence, compared to all other health and safety events, make up about 12% of all reported incidents.[21] This trend has been fairly stable over the past three years. The frequency of injury due to violence or force is much lower in acute settings than it is in long-term care. In 2015, long-term care workers were over three times more likely to receive an injury resulting from violence or force.[22]

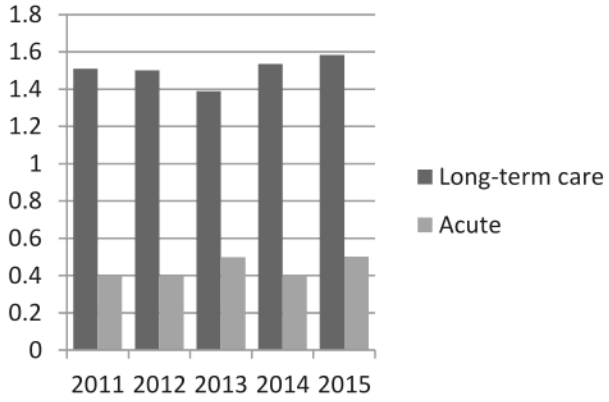


Figure 6: Injury rates due to violence or force (Source: WorkSafe BC)

[17] https://www.worksafebc.com/en/about-us/what-we-do/high-risk-strategies/health-care
[18] Source: Healthcare Benefit Trust.
[19] Health Sector Compensation Information System (HSCIS)
[20] WorkSafe BC, 2016 High Risk Strategy – Health Care. Source: www.worksafebc.com.
[21] Ibid 18
[22] Source: Healthcare Benefit Trust.

Technology

Technological advances may reduce or increase the need for existing health care workers, or lead to changes in their role and scope of practice. Digital technologies, such as telehealth, may also improve access to health services for those living in rural communities. Additionally, technological advances will likely require establishment of new education and training programs to provide health workers with requisite skills or new regulations to govern the practice of health care workers using the new technology.

Emergent Health Crises

In April 2016, the provincial health officer declared a public health emergency under BC's *Public Health Act* in response to a significant increase in the number of opioid overdose deaths across the province. The response to this crisis has had a significant impact to the health workforce including:

- Improving staffing levels to expand the reach of supervised consumption sites and open over twenty overdose prevention services locations, while sometimes redeploying staff and resources from other services;
- Improving health professional education and guidance for substance use;
- Increasing the demand for people who have substance use training;
- Affecting the psychosocial health of the health providers that are responding to the opioid crisis with the potential to contribute to additional stress and burnout.

The wildfire events of the 2017 summer season constituted another provincial-level emergency that had an impact on health providers, both professionally and personally. The emergency had a broad-based impact on health care providers who, along with others in their communities, faced evacuation and were called upon to act in non-traditional roles and settings as the crisis unfolded.

Public/Private

More than 65,000 health care workers are employed in BC's private health sector, occupying diverse roles, from physiotherapists in private clinics to health care assistants working in private residential care facilities. Private and public employers access a common labour market for many occupations and are often similarly affected by prevailing supply and demand conditions. In some cases, private employers may have greater flexibility around compensation levels and accommodating employee work-life balance needs. Other times, they may experience difficulty recruiting and retaining workers attracted by generous public sector benefits. The analysis and strategies presented in this document reflect the need to consider employer requirements in both sectors.

Workforce Optimization

The Ministry of Health is working collaboratively with partners to improve patient and population health outcomes through the promotion of interdisciplinary team based care. The intent is to support providers to optimize their scope of practice by ensuring that teams have sufficient flexibility and an appropriate skill mix to respond most effectively to patient needs. Enabling high functioning teams requires a holistic approach including modifications to educational curricula, as well as change management and leadership supports for health providers.

Change Management and Leadership

While focus on the clinical health professionals providing services is critical, corporate leadership, excluded and administrative roles in medical services or other departments are a crucial part of the workforce. It is anticipated that with service transformation, significant resources will be required to lead and manage change. In addition, to create and enable change, qualified project leaders and change management professionals will be required to plan, communicate, implement, and support health providers to successfully navigate the change.

Workforce Migration

BC has historically benefitted from net domestic and international inflow of workers to the province in health and other sectors. While this has many economic and social benefits, it also presents some challenges that can be particularly important in a health care context. Although much progress has been made in recent years, foreign credential recognition may continue to pose a significant barrier, reflecting variations in education and practice standards around the world. Newcomers seeking work in their chosen occupations may also be called upon to adapt to different workplace and cultural norms, in some cases in a language they are unaccustomed to working in.

The Ministry, health employers and provincial regulators must act in a way that supports foreign trained health providers to achieve their greatest potential while ensuring that the health and safety of British Columbians are never compromised.

4. Health System Strategic Priority Areas and Priority Professions

Integrated System of Care

In addition to supporting provincial education, training, recruitment and retention programs, the 2018/19 Provincial Health Workforce Strategy supports the implementation of the Integrated System of Care policy direction – including the vision for primary care services, and specialized community care and surgical services. This section is structured to reflect both the ongoing support of the overall health system and these priority areas. Priority professions are organized under the following service areas:

- Primary care (patient medical home and primary care networks)
- Adults with complex medical conditions and/or frailty
- Mental health and substance use
- Surgical services
- Cross-system services/professions

Although many professions span two or more of these categories, they are included under the service area where health authorities have identified the greatest need. The professions that are listed are not inclusive of all professions that could make up an interdisciplinary team in each area.

A description of each policy area and direction is followed by an analysis of key labour market issues. Strategies have been developed to help mitigate potential workforce gaps and to facilitate implementation of the policy direction for the Integrated System of Care outlined by the Ministry.

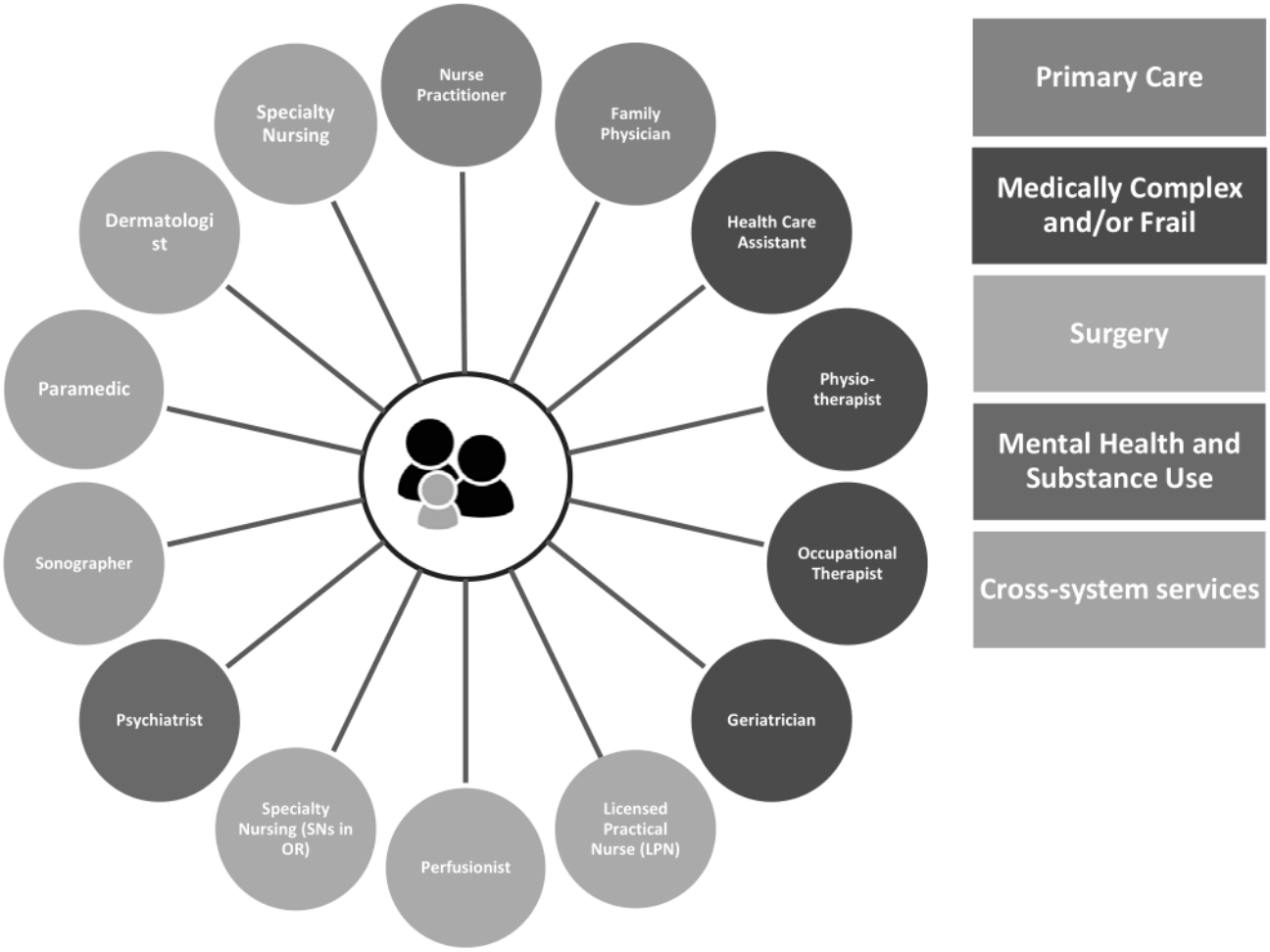
Criteria for Priority Profession/Service Area Selection:

- **Prevalence in HA submissions**
- **Forecasted gaps at provincial level**
- **Impact of gaps on patients, population health and providers**
- **Labour market issues requiring provincial action**
- **Ministry strategic priorities**
- **Provincial action or monitoring required**

Priority Professions

On an annual basis, the Ministry produces a list of priority professions for the health sector. Historically, the list was limited to ten nursing and allied health professions and provided to the Ministries of Advanced Education, Skills and Training (AEST) and Jobs, Tourism & Technology (JTT) to inform educational and labour market programs and planning.

In 2016/17, the list comprised a total of nine professions (eight nursing/allied and one physician). This year, with the inclusion of more robust physician data, the Priority Professions List includes a total of thirteen professions (nine nursing/allied and four physician specialties):



How Is the Priority Profession List Used?

The most general use of the list is to guide government policy direction in the areas of education, recruitment, retention, training, deployment and optimization of the workforce for each individual priority profession. The list is also used to inform a number of provincial programs, including Student Aid BC's Loan Forgiveness Program and is provided to JTT to include in the annual "Labour Market Outlook" report.

Priority Service Areas

In addition to the thirteen priority professions, four service areas were identified based on feedback from health authorities. Certain professions within these service areas will require monitoring and action.

Anesthesia Services	Mental Health & Substance Use Services	Palliative Care	Indigenous Health

I. Primary Care Services – Patient Medical Home and Primary Care Networks

Building a sustainable primary care system that meets the needs of British Columbians is a key priority of government. To address the need for primary care services, the Ministry is collaborating with health system partners to implement team-based **patient medical homes,** linked together in **primary care networks** to meet the primary care needs of a community.

A patient medical home (PMH) is a physician practice or health authority primary care clinic that meets the majority of the comprehensive primary care needs of patients through in-practice interdisciplinary teams. PMHs provide care across the life cycle (newborn to end of life and palliative care), across clinical settings and geographic service areas, and across the full spectrum of services provided within the regulated scope of family practice and appropriate procedural medicine.

A primary care network (PCN) is a network of PMHs linked with health authority primary and community care services. PCNs will be designed to meet the needs of individuals and ensure the comprehensive suite of primary and community care services are accessible by the community population they serve. Within a PCN, all physician practices and health authority primary care clinics will be supported to become PMHs.

The Ministry's vision for primary care services is for every individual and family who wants a regular primary care provider to be attached to one. The primary care provider is responsible for the overall coordination and continuity of the individual's care, and maintaining this key role irrespective of health service area or whether the required care is provided within the PMH or by other health professionals (e.g. specialists) in the system.

Key to the Ministry's vision for primary care moving forward, and to ensuring all British Columbians have timely and safe access to primary care services, is expansion of nurse practitioner primary care workforce. As the demand for their services is expected to continue over the next three years, increased utilization of nurse practitioners will be needed to improve attachment rates.

Beyond primary care providers, PCN interdisciplinary teams will provide wrap-around, person-centered care using available health human resources, optimized scopes of practice, and, where necessary and appropriate, virtual care to achieve service objectives. Health care providers that have been identified as provincial priorities by the workforce planning process and which may be part of PCN interdisciplinary teams include (the blue bolded professions are on the priority profession list for 2018/19):

- **Nurse practitioner**
- **Family physician**
- **Licensed Practical Nurse (LPN)**
- **Occupational therapist (OT)**
- **Physiotherapist**
- Registered Nurse
- Psychologist
- Social worker

Family Physician

Family physicians are often the first point of contact for people seeking health care. Traditionally, family physicians provide care that is: Personal (based on the relationship with the patient), comprehensive (in consideration of the whole patient in the context of his or her needs, history and life situation) and continuous (the long-term, ongoing nature of the professional relationship). Family physicians in BC have the opportunity to develop specific advanced skills through continuing medical education and enhanced skills training programs to address identified needs in both rural and urban communities.

Supply/Demand

In 2015/16, **6,036**[23] family physicians (**4,896 FTE**) provided services to British Columbians in the publicly funded health system; however, not all of them provide longitudinal primary care to patients. Family physicians across the province have different practice patterns. In addition to providing longitudinal primary care, family physicians may also:

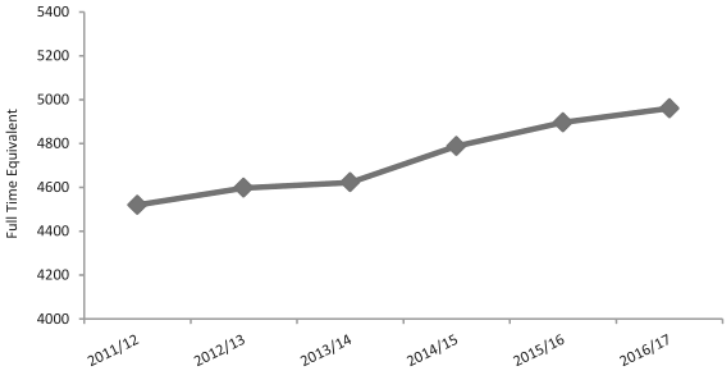


Figure 1: General Practice, Projected Provincial Supply (Source: MSP/APP and planning submissions/model results)

- become hospitalists (i.e., specialize in hospital medicine);
- gain additional skills training and provide additional services (e.g., anesthesia, emergency medicine, geriatrics, addictions medicine, etc.);
- work as locums;
- provide inpatient care to their patients and unattached patients (mostly in small to medium sized hospitals); and,
- take shifts in the emergency department (mostly in rural communities).

All of these options, as well as personal work-life balance decisions, impact a family physician's capacity to provide longitudinal primary care. For example, family physicians may not necessarily work a typical 40 hour work week, with some working more and some less.

Five health authorities identified family physicians as a priority profession. Figure 1 illustrates growth of 9.8% in family physician FTEs across BC. Recent expansion of the UBC medical program and the Practice Readiness Assessment are expected to positively influence supply in the coming years.

[23] Integrated Analytics – Hospital, Diagnostic and Workforce, Health Sector Information Analysis and Reporting Division, August 2017

Labour Market Issues

Generational Expectations and Changing Practice Patterns

Newer to practice family physicians often have career expectations that differ from those of retiring physicians that may impact how they work and deliver care. Examples may include the desire to maintain a smaller practice size, work in an interdisciplinary team-based environment, have limited office management responsibilities, limit making a commitment to one community early in their career, maintain a flexible schedule (including part-time opportunities), focus on specific service areas (e.g., hospital medicine, locum, emergency medicine, etc.), establish a guaranteed income (i.e., salary or service contract) and ensure a healthy work/life balance[24]. Additionally, fewer family physicians are providing a full scope of care that includes attaching patients to their family practice, providing maternity care and seeing patients in hospital and residential care facilities.

Maldistribution

Three health authorities identified the maldistribution of family physicians as an issue related to accessing primary care. For the most part, each family physician can determine where they wish to practice. For rural and remote locations, recruitment and retention is a constant challenge. Adding to the primary care access issues in these communities is competition from urban centres that can offer additional opportunities and services. Therefore, there is reliance in the small, rural and remote communities on International Medical Graduates (IMGs) and Return of Service (ROS) programs, such as Distributed Medical Education, IMG BC and PRA BC, to help meet the population's primary care needs.

The distribution of family physician FTEs per 10,000 population at the health authority level ranges between 8.4 for Fraser Health Authority and 12.6 for Northern Health Authority. However, maldistribution is evident at the community level where some smaller communities have less than 5 FTEs per 10,000 including South Cariboo, Sooke, Enderby and Armstrong - Spallumcheen. Vancouver - City Centre has 23.2 FTEs per 10,000[25]. Also of note, Nisga'a has one physician for a population of 1,989 and Telegraph Creek has no physicians for their population of 640.

Workload Management – Productivity

Expenditures for physician services in Canada have been rising since 1975. In BC, from 1996/97 to 2005/06, this trend continued and while expenditures increased, the perception of a general shortage of family physicians has persisted[26]. The issue may not be the number of family physicians but how they are practicing. Four health authorities point to a generational difference by recent graduates for work-life balance and an increased focus on family and lifestyle. The shift in desired practice style is to a mixed role working with interdisciplinary teams where there is a preference for part-time practice and a reluctance to commit and buy in to a clinic. There is also evidence from the Divisions of Family Practice that there is an increased number of new family physicians who generally take on fewer patients and/or work fewer hours than older physicians, where it can take more than one new physician to replace a retiring physician.

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[24] Snadden, David and Kunzli, Mark. Rural Health Care: Adapting to Generational Change. Research Report. Department of Family Practice, Faculty of Medicine, University of British Columbia. 2017.

[25] Ministry of Health, HSIAR data, provided August 31, 2017.

[26] McGrail KM, Evans RG, Barer ML, Kerluke KJ, McKendry R. Diagnosing senescence: contributions to physician expenditure increases in British Columbia, 1996/97 to 2005/06. Healthc Policy. 2011 Aug; 7(1):41-54.

Nurse Practitioner

Nurse practitioners (NPs) are registered nurses with a graduate level degree. They perform a full range of basic nursing functions plus additional tasks such as diagnosing, prescribing, ordering diagnostic tests, managing common acute and chronic illnesses, and referring patients to specialists. NPs are autonomous professionals, but work collaboratively with other health care providers.

"NPs provide care that is safe, effective, patient-centered, timely, efficient, equitable and evidence based." – 2017. **BC Nurse Practitioner Association.** Primary Care Transformation in BC

Supply/Demand

The College of Registered Nurses of British Columbia has **455** NP registrants, **426** of whom are practicing.[27] In 2016, **280 FTE**, approximately **361 people,** were employed by health authorities and affiliate employers.

Four health authorities identified NPs as a priority profession.

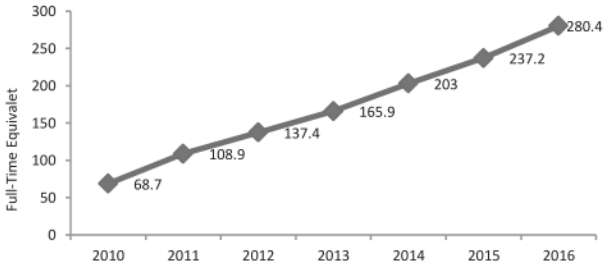


Figure 1: Health Authority Employed NP Supply Growth (Source: HSCIS)

Although BC's nurse practitioner workforce has been growing significantly in recent years, absolute numbers in the province remain small.

As one of the more recently introduced occupations in BC, NPs have an elevated growth rate when compared with most others. The NP workforce is relatively young and has lower retirement-related attrition combined with high annual graduation rates (as a percentage of the current NP workforce). This is likely to lead to continued strong percentage growth in supply in the coming years.

Labour Market Issues

Barriers to Broader Utilization

NPs were introduced to BC in 2005 and, although incremental steps have been taken to integrate the role, system level changes are needed to enable NPs to practice to full potential. This is particularly true of primary care, where progress towards a clear, flexible funding and compensation model would allow NPs to more effectively contribute to the health of British Columbians. NPs are an underutilized resource with great potential to provide safe and cost-effective care for patients in a wide variety of settings across the province. Achieving this will require addressing structural and cultural barriers to broader utilization of the profession within the health system.

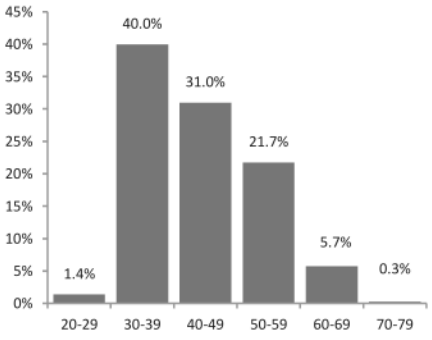


Figure 2: Age Distribution of Publicly Employed Nurse Practitioners, 2016 (Source: HSCIS)

[27] College of Registered Nurses of British Columbia, *Annual Report 2016-17*

Potential Supply Challenges

Significant attention has been placed on this occupation as the Ministry and its partners seek new approaches to expand access, improve outcomes and increase the sustainability of the health system. If current barriers are removed, demand for nurse practitioners could significantly outpace growth in supply.

Provincial Implications

Primary and Community Care

Improving access to primary care services is a top priority for government and family physicians and nurse practitioners are critical members of the **interdisciplinary primary care team**. These teams will provide care in patient medical homes and urgent family care centres to improve the health of the population and reduce congestion in hospitals.

Given their broad scope of practice and strong value proposition, nurse practitioners are well positioned to take on an increased lead role within these teams. Extending the use of nurse practitioners, including within planned urgent family care centres, is a critical part of government's strategy to ensure that all British Columbians have timely access to safe and effective primary care.

II. Adults with Complex Medical Conditions and/or Frailty

The Integrated System of Care policy framework outlines requirements for a Specialized Community Services Program (SCSP) for Adults with Complex Medical Conditions and/or Frailty. The policy applies to health authorities, health providers, and health authority contracted service providers delivering these specialized services. It includes all services to meet the needs of adults with complex medical conditions and/or frailty. These services include program-based clinical care, community nursing and allied services managed (or contracted) by health authorities, specialist medical care, home support, adult day respite, respite care and short-term residential care, assisted living, long-term residential care, palliative care and formal linkages to local community-based services and non-government organizations.

Interdisciplinary care teams will provide wrap-around, person-centred care, optimized scopes of practice, and use digital technologies to increase the range and means of service delivery (including virtual care) to achieve service objectives. Based on the sub-population being served, interdisciplinary care teams may be comprised of, but are not limited to, the following health care providers (the blue bolded professions are on the priority profession list for 2018/19):

- **Health care assistant (HCA)**
- **Licensed practical nurse (LPN)**
- **Occupational therapist (OT)**
- **Physiotherapist (PT)**
- Registered nurse
- Rehabilitation assistant
- Dietician
- Social worker
- Medical specialist

In 2017, two reports were released calling for a more comprehensive health workforce planning process across the home and community care sector and a need for enhanced focus on the workforce in the residential care sector. The reports outlined the changes required to the approach and management of

the health workforce, including a cultural shift toward a team-based model of care and the change of staff roles and functions to improve coordination and continuity of care. [28]

Specific to residential care services, the Ministry has committed to working with health authorities and service providers to prioritize increased staffing levels and to ensure a minimum of 3.36 funded worked care hours per resident bed day, as an average across health authorities. Within residential care facilities, the Ministry has estimated that an increase of approximately **1,298 FTE** is required to meet a standard average of **3.36 funded worked care hours** per resident bed day by health authority as follows:

- HCAs 677 FTE
- RN/RPN 172 FTE
- LPNs 112 FTE
- Allied (PT, OT, SW) 159 FTE
- Other 178 FTE (rehab assistants, activity coordinators, etc.)

Specific to other components of the SCSP, formal evaluation and strategy is under development and must be based upon the operational needs of each individual health authority. Positive workforce demand influences include:

- greater numbers of health care assistants (HCAs) and professional staff to support the increase in complexity and volume of clients as the system shifts care from facilities to community settings where possible,
- changes in skill mix and staffing levels within Assisted Living facilities as the result of changes to the *Community Care and Assisted Living Act,*
- Increased emphasis on respite services to improve supports for clients and their unpaid care providers will require increased need for health care assistants and adult day program spaces across the province,
- Overall, an increase in staff will support improvements in the continuity of care and response times for basic care needs. Increased staffing also allows for important interpersonal relationships to develop between staff and residents, a key component in an individual's quality of life, and one that is currently lacking for many residents.[29]

[28] An Action Plan To Strengthen Home and Community Care for Seniors. March 2017. Residential Care Staffing Review. March 2017.

[29] Office of the Seniors Advocate. Report – Every Voice Counts. Residential Care Survey Results. September 2017.

Health Care Assistant - Care Aide and Community Health Worker

In BC, the term Health Care Assistant (HCA) describes a variety of workers including, but not limited to, the following job titles: community health worker, resident care attendant, care aide, home support worker, nurse aide and personal support worker. HCAs are front-line health care providers who work in the public and private sector across a wide spectrum of care settings. This analysis focuses on two categories of HCAs: care aide and community health worker (CHW).

"In Canada, the aging population and need for continuing care is expected to drive demand for health care assistants, and it has been suggested that the need for community care workers could double in the next decade"- Conference Board of Canada

Supply/Demand

The workforce planning process has revealed significant gaps for care aides and community health workers employed by health authorities. HCAs are employed by health authorities, affiliate employers, and private industry in BC across a wide spectrum of care settings, including acute care, assisted living, residential care, and community care. There are approximately **32,000** active HCAs in the BC Care Aide and Community Health Worker Registry.[30]

In 2016/17, approximately **28,000** HCAs were employed by health authority and affiliated employers[31]. While this is a significant number of health care providers, it does not capture the entire workforce as there is no definitive data source to determine the full extent of private sector employment.

Care Aide

In 2016, there were approximately **18,956** care aides or **11,299 FTE** employed in the publicly funded health care system.[32]

Of this total number, **10,979** care aides (**6,620 FTE**) were employed directly by health authorities and Providence Health Care, while **7,977** (**4,679.5 FTE**) were employed by contracted third party providers, often referred to as affiliates. The FTE growth rate between 2012 and 2016 was 10.1%.

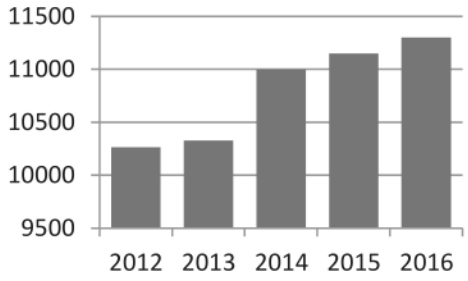


Figure 1: Care Aide Supply Growth (Source: HSCIS 2016 Q4)

Community Health Worker (CHW)

In 2016, there were approximately **6,797** CHWs (**4,091 FTE**) employed in the publicly funded health care system.

[30] BC Care Aide and Community Health Worker Registry. "An individual is required to be active if they are looking for employment in the public sector or is currently employed and voluntarily renews their registration. An individual who is already employed is not required to be active in the registry."

[31] HSCIS. 2016 Q4. And planning submissions. Double counting is present in this number.

[32] HSCIS 2016 Q4.

Of this total number, approximately **4,029** CHWs (**2,434 FTE**) were employed directly by health authorities, while **2,768 CHWs** (**1,657 FTE**) were employed by contracted third party providers.

Unlike many other occupations, the CHW workforce has declined over the past five years by 13.9%. This compares to population growth of 4.6% and an expansion of the general Nursing/Allied Health workforce of 5.6%.[33] Labour market issues associated with the decline are discussed in the following section.

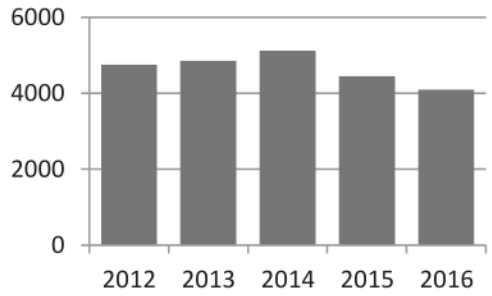


Figure 2: Community Health Worker FTE Supply Change (Source: HSCIS 2016 Q4)

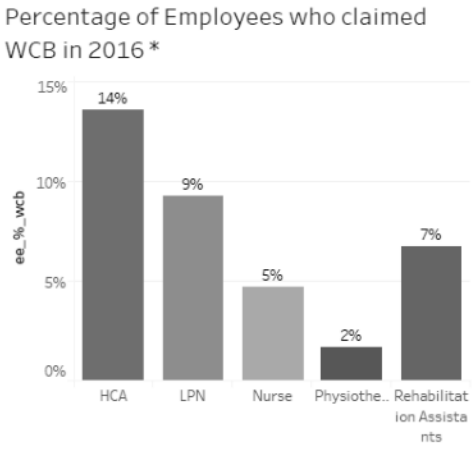


Figure 3: Percentage of Employees who claimed WCB in 2016 (Source: HSCIS)

Labour Market Issues

Increasing HCA Demand

Demand for HCAs is expected to increase with the growing need for home support, assisted living and residential care services. Furthermore, with the commitment to increase the direct care hours to an average by health authority of **3.36 worked care hours per resident day**, it is estimated that the HCA workforce in residential care must increase by approximately **900 FTE**. [34]

Workplace Health and Wellness

High incidences of workplace violence and injury and high utilization of sick leave constrains the supply of HCAs. Workers Compensation Board (WCB) claims for HCAs were significantly higher than other occupations in 2016, with 14% of HCAs who had a time loss claim.

The Health Services Subsector represents 61% of workplace violence claims, 41% of these were for HCAs and related occupations in 2016.[35]

Compensation /Differences in Collective Agreements

Health authorities cite wage differentials as a barrier to recruitment and retention of HCAs working in community and home support. In addition, health authorities claim that

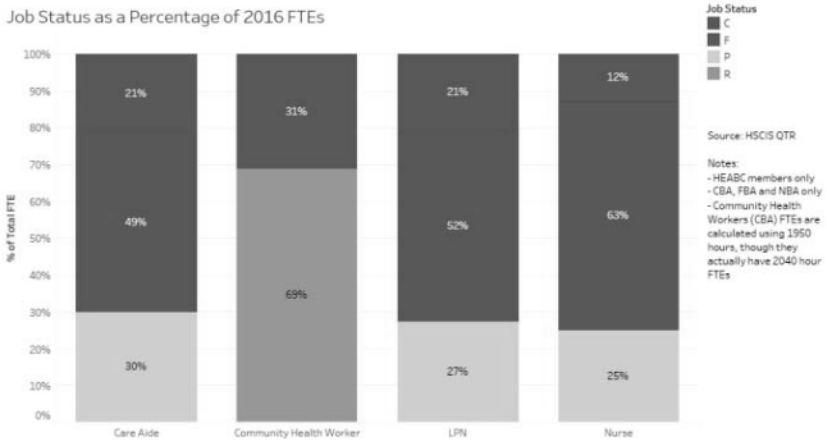


Figure 4: Job Status as a Percentage of 2016 FTEs (Source: HSCIS)

[33] Health Employers Association of BC, HSCIS 2016

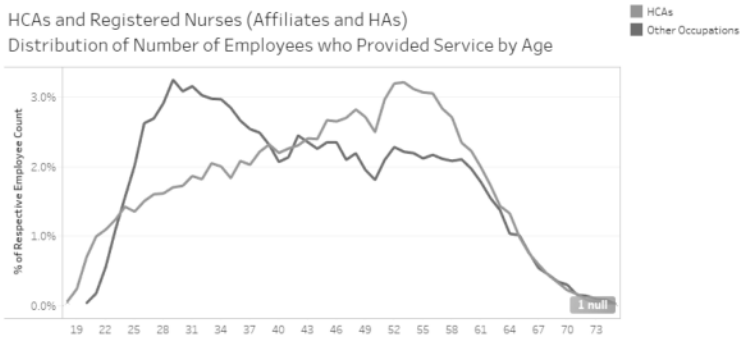
[34] *Residential Care Staffing Review.* Darryl Plecas. March 2017

[35] Health Employers Association of BC. Database: Workers Compensation Board 2016

collective agreement limitations placed on combining facility and community work, as well as community and mental health work limits health authorities' ability to serve clients effectively and efficiently.[36]

Turnover/Churn

The HCA workforce experiences elevated rates of turnover and staffing churn. This is due in part to the large percentage of casual and part-time positions. Instability in the HCA workforce results in scheduling and management challenges, as well as high costs for continuous staff recruitment and orientation. The adjacent chart represents the job status of care aides, CHWs, LPNs and RNs in 2016. Fifty-one percent of care aides working for health authorities and affiliate employers are casual or part-time employees. As a result of a lack of available full-time positions, many care aides work for multiple employers. Thirty-one percent of CHWs are casual employees and 69% are categorized as "regular" employees (48% part-time, 21% full-time).[37] Employers report that the majority of CHW workers are part-time employees because they are only able to schedule CHW shifts in four hour blocks given that peak demand for CHW services in home and community care is in the morning and evening.



Aging Workforce

It is anticipated that an aging workforce will affect the supply of HCAs given 26.4% of the HCA workforce is 55 years and over.[38] The median age of the HCA workforce is 46 years. Figure 5 illustrates the age of the HCA workforce in comparison to RNs and other health occupations.

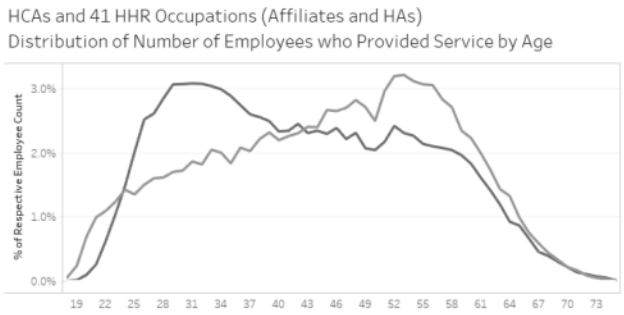


Figure 5: Age of HCA workforce in comparison to other health providers (Source: HSCIS)

Provincial Implications

Improving the quality of care for seniors is a priority for government and HCAs are integral members of the team delivering direct-care services to the seniors' population. The demand for HCAs is expected to increase due to a growing and aging provincial population and a shift of focus from acute to primary and community care service models.

[36] HCA Labour Market Analysis Survey. June 2017.

[37] Data source: HSCIS 2016 Q4.

[38] Data source HSCIS 2016 Q4.

Physiotherapist

Physiotherapists promote mobility, physical activity and overall health and wellness with a focus on disease, illness and disability prevention. Practitioners can assist with management of acute and chronic conditions, improving or maintaining functional independence and physical performance.

"Physiotherapy is a key part of all sectors of health care, from health promotion to rehabilitation and from primary health care to long-term and continuing care, and the demand for these services is growing". Conference Board of Canada, The Role of Physiotherapy in Canada (2017).

Supply/Demand

The College of Physical Therapists of British Columbia has 3,545 registrants, approximately 45% of whom work in the public sector[39]. In 2016, **992** FTE (approximately **1571** headcount) were employed by health authorities and affiliate employers.

Although BC has the second highest per capita supply of physiotherapists in Canada at 7.3 practitioners per 100,000 residents[40], three health authorities identified physiotherapists as a priority profession. Demand for physiotherapists is strong and growing in both the public and private sectors:

- In 2014, BC had the highest proportion of individuals who had consulted a physiotherapist of any province.[41]
- In 2015, the unemployment rate for physiotherapists in BC was 2.3%, much lower than the provincial average.[42]

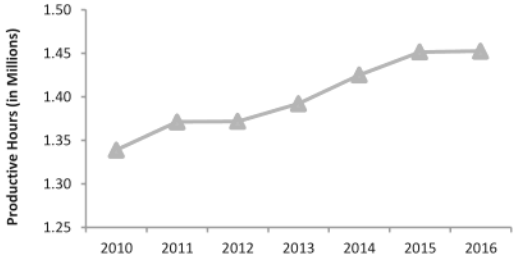


Figure 1: Physiotherapist Supply – Health Authorities Only (Source: HSCIS Q4 2016)

Labour Market Issues

Education

BC offers one physiotherapist training program - the two year Master of Physical Therapy (MPT) program at the University of British Columbia - with a capacity of 80 students annually. Since 2012, the MPT has included a 20 seat Northern and Rural Cohort designed to increase the recruitment and retention of physiotherapists in rural areas. BC has the smallest training capacity for physiotherapists

[39] HSCIS data extract, Q4 2016.
[40] HSCIS data extract, Q4 2016.
[41] Market Profile for Physiotherapists, 2017.
[42] WorkBC, Physiotherapist Career Profile, 2017.

nationally when adjusted for population and, as a result, the lowest percentage (36%) of the workforce trained in-province for all jurisdictions hosting training programs.

Maldistribution and Rural/Remote

Physiotherapist productive hours per 100 local residents range from 23 at Fraser Health to 47 at Vancouver Coastal.[43] All health authorities expressed some level of difficulty recruiting qualified staff to fill physiotherapist vacancies in rural and remote areas.[44] Despite having fewer positions per capita, rural and remote areas are challenged by persistent vacancies. These areas also receive less publicly funded physiotherapy hours than larger communities. Maldistribution of physiotherapist resources has resulted in inconsistent service delivery between and within health authorities. Data from the Health Sector Compensation Information System (HSCIS) database sheds more light on the distribution of public sector physiotherapists. According to the data, the number of physiotherapist productive hours (exclusive of vacation, training and other leaves) per resident varies with population density. A significantly higher concentration of physiotherapist work in the public sector per unit of population for Metro and Urban/Rural compared to those communities classified as purely rural or remote.

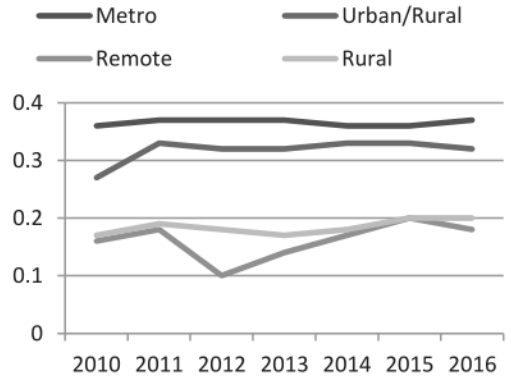


Figure 2: Annual Productive Hours per Resident, 2016
(Source: HSCIS)

Private Sector Opportunities

Following a trend that is occurring nationally, the balance is shifting between private and public sector employment in physiotherapy in BC. In 2012, 42.6% of physiotherapists worked in the private sector. By 2016, this percentage had increased to 47.85%.[45]Health authorities indicate new grads are increasingly drawn to private sector opportunities that offer competitive compensation, greater flexibility of scheduling, a more manageable caseload and a focus on musculoskeletal practice desired by many new entrants to the occupation.

Figure 3 illustrates change in the physiotherapist workforce over time, including a shift towards professional practice. While employment in hospital and community settings has been relatively constant since 2007 despite a growing and aging population, the number of physiotherapists working in private professional practice has increased by more than 60%. The "other" category includes

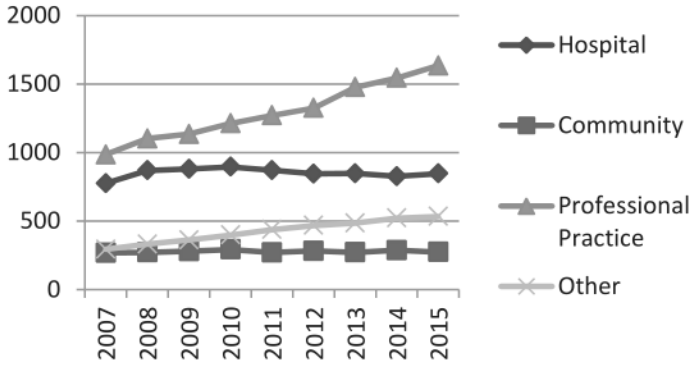


Figure 3: Physiotherapists by Place of Employment
(Source: CIHI, Physiotherapists 2015)

[43] HSCIS data extract, Q4 2016

[44] Labour Market Analysis Working Session, March 17, 2017

[45] College of Physical Therapists of British Columbia. *Annual Report 2016.* 2017.

physiotherapists working for government, educational institutions and private industry.

Workforce Health and Wellness

Health authorities report a need for physiotherapy that is growing faster than staffing levels due to aging populations and the increasing prevalence of chronic disease. Health authorities view elevated workloads associated with public sector employment as a barrier to recruitment and retention.[46] There is a perception that public sector workplaces are becoming less desirable due to increases in workload. Baseline staffing is such that physiotherapists must prioritize their caseloads and are unable to see all patients who require their services. This may reduce job satisfaction, delay patient discharge and increase the likelihood of hospital readmissions.

With less time to address patient needs, the work of public sector physiotherapists may become more focused on deploying measures to allow patients to cope with their conditions rather than engaging in true rehabilitation. Health authorities have suggested that this has led to an "ethical tension" or "moral fatigue" on the part of some public sector physiotherapists who are unable to provide services they know patients could benefit from.[47]

Optimization/Scope of Practice

Physiotherapists focus on rehabilitation but collaborate within care teams to ensure that patient needs are met. In acute care settings, there are opportunities to better support these teams to meet patients' basic mobility needs while optimizing the scope of each team member. If mobility is left unaddressed, older patients can decline quickly. Declining patient mobility can also increase the burden on rehabilitation resources prior to patient discharge and later in the community. Physiotherapists and rehabilitation assistants spend time mobilizing patients when there are other providers who could provide this service, allowing physiotherapists to work closer to the top of their scope.[48]

Provincial Implications

In tandem with the growing and aging population, the prevalence of chronic and complex conditions in BC is on the rise. This is due both to the aging demographic and health care advances that have increased the likelihood of surviving once-fatal injuries or illnesses. This can reasonably be expected to increase pressure on rehabilitation services, including physiotherapy, available through the public health system and privately.

[46] Labour Market Analysis Working Session, March 17, 2017
[47] Labour Market Analysis Working Session, March 17, 2017
[48] Labour Market Analysis Working Session, March 17, 2017

Occupational Therapist

Occupational Therapists (OTs) use a systematic approach to enable individuals, groups and communities to develop the means and opportunities to identify, engage in and improve their function in the occupations of life. The process involves assessment, intervention and evaluation of the client related to occupational performance in self-care, work, study, volunteerism and leisure.

Supply/Demand

In 2016, the College of Occupational Therapists of British Columbia (COTBC) had **2,380 registrants**.[49] Approximately **66%** of OTs work in the public sector (health authorities and affiliates), with **1569 employees (1,028 FTEs)** in 2016. At 45 per 100,000, BC's supply of OTs is just under the national average.[50]

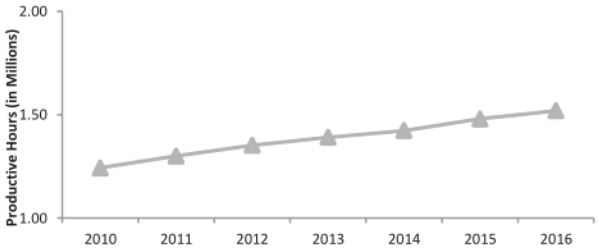


Figure 1: Occupational Therapist Provincial Supply– Health Authorities Only (Source: HSCIS Q4 2016)

The Conference Board of Canada projects that the number of occupational therapists supported by the continuing care sector will grow nationally by 162%, from 3,569 in 2011 to 9,353 in 2046.[51]

Integration of allied health providers within interdisciplinary teams in primary care and mental health and substance use service areas is driving demand for occupational therapists in some health authorities.[52]

Northern Health, Fraser Health and Vancouver Coastal Health continue to flag occupational therapist as a priority profession. This situation could be amplified by the strategic shifts within the provincial health system as further integration of occupational therapist services within interdisciplinary teams occurs and/or if the current maldistribution of practitioners across the province changes.

Labour Market Issues

Education and Training

There is one training program for OTs based at the University of British Columbia (56 seats). UBC cites very high application demand for the program, with 390 applicants above the minimum GPA threshold for the September 2017 intake.[53]

BC's training capacity is lower than Alberta, Ontario and Quebec when adjusted for population.[54] Of the 188 new registrants with COTBC in 2015/16, only 26.6% were UBC graduates.[55] Since 2006, the

[49] College of Occupational Therapists of BC. Annual Report. 2016

[50] Canadian Institute for Health Information. Occupational Therapists, 2015.

[51] Conference Board of Canada, Future Care for Canadian Seniors: A Status Quo Forecast, 2015

[52] Northern, Interior, Island Health, Template B Planning Submission, 2017

[53] BC OT Workforce Collaborative, Meeting Minutes, May 26, 2017

[54] Canadian Institute for Health Information. Occupational Therapists, 2015.

[55] College of Occupational Therapists of BC. Annual Report. 2016.

percentage of internationally-trained occupational therapists in BC increased from 7.0% to 15.0%, the highest in the country.[56]

Variations in regional labour market supply may limit flexibility to integrate occupational therapists within interdisciplinary teams for primary care and specialized community service programs.

Maldistribution

The vast majority (95.8%) of OTs in BC practice in urban areas.[57] Figure 2 illustrates the significant differences in provider density between health authorities, from a low of 11.8 FTEs per 100,000 residents at Northern Health Authority to 28.0 at Vancouver Coastal (including Providence and PHSA). Some health authorities indicate that they have small communities that do not have access to OT services and are unable to attract OT grads from UBC to some rural areas and have had to rely on recruitment from other provinces.[58]

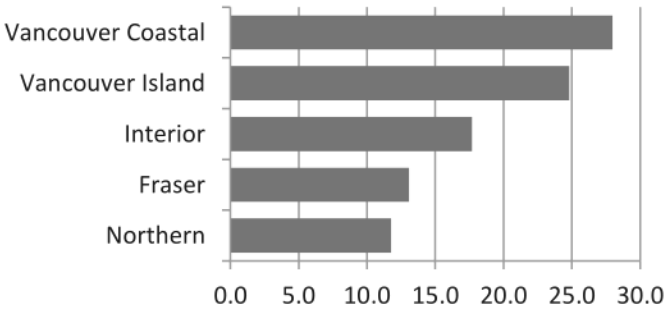


Figure 2: OT Health Authority FTEs per 100,000 residents, 2016
(Source: HSCIS)

As in other jurisdictions, BC's occupational therapists practice primarily in urban areas. According to available data, only 4.2% were employed in rural/remote locations. This is slightly lower than the Canadian average (6.0%) but higher than Ontario (2.2%) (Figure 3).[59]

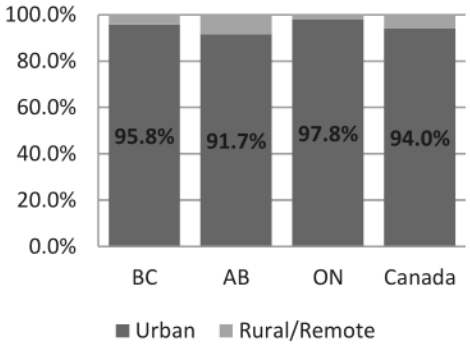


Figure 3: OT Urban/Rural Distribution, 2015
(Source: CIHI, OT 2016)

Provincial data shows the distribution of occupational therapist resources varies on a regional basis, with Interior, Fraser and Northern significantly under-represented compared to Vancouver Coastal and Vancouver Island. Maldistribution of occupational therapist resources has resulted in inconsistent service delivery between and within health authorities.

Provincial Implications

Health authorities report a need for occupational therapy that is growing faster than staffing levels due to aging populations and the increasing prevalence of chronic disease.[60] This has resulted in the need for prioritization within caseloads and can result in delayed patient discharges from hospital or preventable

[56] Canadian Institute for Health Information, Occupational Therapists, 2015.
[57] Canadian Institute for Health Information, Occupational Therapists, 2015.
[58] Labour Market Analysis Working Session, March 17, 2017
[59] Canadian Institute for Health Information, Occupational Therapists, 2015.
[60] Labour Market Analysis Working Session, March 17, 2017

readmissions.[61] Demand for occupational therapists can be expected to increase along with the general need for health services, including mental health, primary and community care, and acute care, due to a growing and aging provincial population.

In tandem with the growing and aging population, the prevalence of chronic and complex conditions in BC is on the rise. This can reasonably be expected to increase pressure on rehabilitation services, including occupational therapy and physiotherapy, available through the public health system and privately.

[61] Rogers, A. T., Bai, G., Lavin, R. A., & Anderson, G. F. *Higher Hospital Spending on Occupational Therapy Is Associated With Lower Readmission Rates.* Medical Care Research and Review. 2016

Geriatrician

Geriatricians work with other members of interdisciplinary health care teams to prevent illness and facilitate ill and/or disabled older persons to regain a level of optimal ability, including whenever possible, returning them to an independent life at home. Geriatric Medicine is a sub-specialty of internal medicine concerned with the prevention, diagnosis, treatment, and social aspects of illness in older people. In addition to specialist Geriatricians, family physicians with enhanced skills in geriatrics provide care in BC.

Supply/Demand

In 2015/16, **48** geriatricians **(38.3 FTE)** provided services to British Columbians in the publicly funded health system. Four health authorities identified geriatricians as a priority profession, citing expected retirements, multi-year vacancies, and insufficient numbers to meet referral demands.

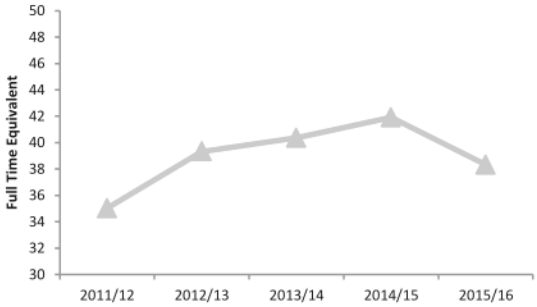


Figure 1: Geriatrician Provincial Supply (Source: MSP/APP)

Labour Market Issues

Small Number of Graduates Annually

BC trains a small number of geriatricians annually, with an average of two graduating each year from UBC. Currently, there are seven residents in all years of residency training at UBC in 2016/17.

Expected Demand Growth

The number of people 75 years old and above is currently over 378,000 and makes up 8% of the BC population. This population segment is expected to grow over 55% in the next ten years to almost 588,000, or 11% of the BC population.[62] This can reasonably be expected to increase the demand for geriatricians.

Maldistribution

Geriatricians are clustered in urban centres in British Columbia. Vancouver - City Centre has 14 (headcount) with another 26 in surrounding cities in the Lower Mainland (Chilliwack, Abbotsford, Richmond, New Westminster, Burnaby, Maple Ridge, Bowen Island, Surry, South Surrey/ White Rock, Vancouver – Westside and Vancouver – Midtown). The remaining geriatricians are in Greater Victoria, Nanaimo and Kamloops. Smaller, remote and rural communities do not have local geriatricians.[63]

[62] PEOPLE 2017. BC Statistics.

[63] Data source: MSP/APP 2015/16. Ministry of Health

III. Surgical Services

The vision for surgical services in BC includes establishing Surgical Services Programs (SSP) that provide services for patients throughout the surgical continuum – from the time surgery is considered as an option through recovery. Part of the surgical strategy includes reducing wait times for scheduled surgical procedures and ensuring optimal management of surgical waitlists. The patient medical home will be involved in the planning of care and SSPs will have formal linkages to primary care networks for patients who are referred for surgical consultation or recovering from surgery.

These services will ensure patients:

- Are informed and prepared for their surgery;
- Have access as needed to specialized resources such as surgeons;
- Receive their surgery at a surgical site as close to home as feasible in a timely manner;
- Receive post-surgery services to support their recovery and return home; and,
- Have their care managed across the continuum, including their time spent at a surgical site, and even if their required services fall outside the SSP.

Interdisciplinary team-based care within the SSPs promotes collective competence, shared leadership and the active participation of each care provider and support staff in patient care; ensures person-centred goals and values, provides continuous communication among team members; provides opportunities for education and training, enhances participation in clinical decision-making within and across disciplines, and fosters respect for the contributions of all team members. Interdisciplinary care teams will provide wrap-around, person-centred care using available workforce resources, optimized scopes of practice and where necessary and appropriate virtual care to achieve service objectives. Based on the population served, interdisciplinary care teams will be comprised of, but not limited to, the following health care providers (the blue bolded professions are on the priority profession list for 2018/19):

- **Nurse (LPN and RN)**
- **Nurse practitioner**
- **Physiotherapist**
- **Perfusionist**
- Anesthesiologist and GP anesthesiologist
- Anesthesia Assistant
- Case manager
- Surgeon and general practitioners with enhanced surgical skills, who will serve as the most responsible clinician
- Dietician/nutritionist
- Counsellor
- Home nursing support
- Surgical services teams located at the surgical site where the surgery occurs
- Groups of clinical surgical sub-specialists

Anesthesia services emerged as a theme across health authority workforce planning submissions; Anesthesia services are included in the Plan as a priority service area of focus for the 2018/19, including anesthesiologists, GP anesthesia, and anesthesia assistants (AAs).

Nurses in the Operating Room

Registered Nurses (RNs) in the Operating Room (OR) provide nursing services in an operating room environment as a member of an integrated surgical team.

Supply/Demand

RNs in the OR have been identified by health authorities as the specialty nursing practise area with the greatest need. In 2016, there were approximately 2195 RNs in the OR (1202 FTE). This is 6.7% greater than in 2010.

Interior Health, Vancouver Coastal, Providence and PHSA cited RNs in the OR as a priority profession. Increasing demand for perioperative services is expected to positively influence demand in the coming years.

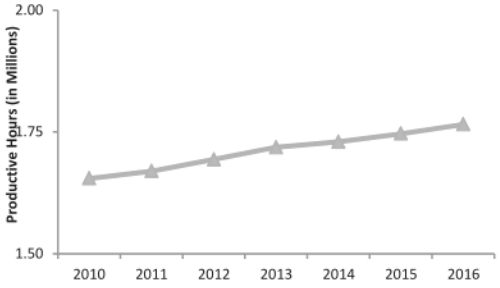


Figure 1: Operating Room Nurse Provincial Supply – Health Authorities Only (Source: HSCIS)

Labour Market Issues

High growth and turnover

Gaps in the supply of RNs who work in the OR have resulted in the temporary closure of some operating rooms in the province. High rates of turnover and difficult to fill vacancies require some health authorities to utilize agency perioperative nurses to avoid closures of operating rooms.

Workplace health and wellness

Workplace health and wellness is a critical issue to recruitment and retention of nurses with specialized training. As outlined in the Nursing Policy Secretariat Consultation Report, the culture within operating rooms is regarded as a challenge to nurses in some areas across the province. The report states: "Nurses frequently cited experiencing disrespectful communication from staff, physicians and fellow nurses leading to difficulty in asserting quality and safety expectations to ensure they meet their standards around providing safe, effective patient care".[64]

Optimization/utilization

The Nursing Policy Secretariat notes that a number of factors such as fear of job loss and misunderstanding of scope of practice prevented some areas from fully utilizing all nursing roles within the operating room, including Licensed Practical Nurses (LPNs).[65]

Maldistribution

[64] BC Nursing Policy Secretariat Consultation Report. 2017

[65] Ibid 21.

Recruitment is a challenge in both rural and urban areas of the province. Recruitment in Vancouver is difficult due to high cost of living - specialty trained nurses are in high demand so they can choose where they live and work.

Education/Training

Health authorities presently access specialty nurse education through post-secondary institutions in BC and Alberta, programs delivered in-house, and online. The British Columbia Institute of Technology (BCIT) is the primary public post-secondary institution delivering education for the core nursing specialties in BC. Three year funding was allocated to provide an additional 1333 FTEs beyond BCIT's annual baseline of 389 between 2016/17 and 2018/19. As of January 2017, BC had a total of more than 1150 students enrolled in all modes of specialty nurse training.[66]

Despite the interest and investment to standardize specialty nursing, variations in educational requirements for practice and the disconnect between health authority and provincial level planning processes make it difficult to achieve alignment between education and workforce needs which support flexibility and portability for nurses who want to work in specialty areas across the province.

Provincial Implications

A supply imbalance, or misunderstanding of scope of practice, of team-members who work in the OR (including RNs and LPNs) has the potential to disrupt operating rooms in the province. Optimizing the role of the LPN and the RN within surgical settings in BC can help to ensure that ORs are able to meet the increasing demand for surgical procedures, which aligns with the Ministry's priority of reducing wait times and ensuring timely access to surgery.

Licensed Practical Nurse

Licensed Practical Nurses (LPNs) focus on foundational nursing competencies. Most work as frontline nurses caring for a wide range of clients at all stages of life. LPNs provide nursing services ranging from health promotion, to acute, long-term and palliative care. Specific LPN practice can vary both between and within the health authorities.

Supply/Demand

The College of Licensed Practical Nurses of British Columbia has **12,940** registrants.[67] In 2016, **6,064 FTE** or**,** approximately **10,054 people**, were employed by health authorities and affiliate employers. Of this number, **2,714** LPNs (**1,434.7 FTE**) were employed by affiliate employers.

LPNs also work in the private sector - in residential care and other settings.

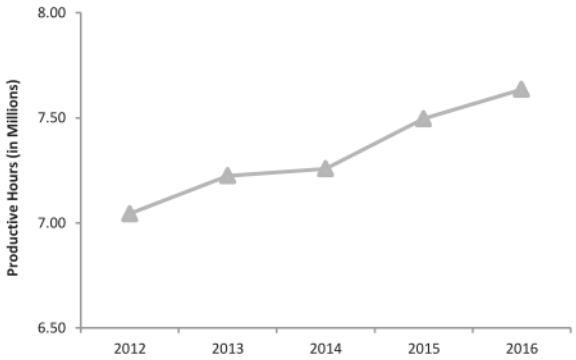


Figure 1: LPN Provincial Supply - Health Authorities Only (Source: HSCIS)

Labour Market Issues

While most health authorities have indicated they are able to recruit and retain sufficient LPNs to meet their current staffing needs, several have flagged that demand for LPNs with additional training will increase in specialized areas such as perioperative and post anesthesia recovery.

Provincial Implications

The need for LPNs is expected to rise as nursing is integrated within interdisciplinary teams planned for primary and community care and as the Ministry continues efforts to ensure scope optimization for all members of the nursing family. Inconsistent utilization in specialty areas and other practice settings highlights an opportunity to increase awareness of the full potential of LPNs and how they can be most effectively deployed within staffing models.

[67] College of Licensed Practical Nurses of British Columbia, *Annual Report,* 2016

Perfusionist (Cardiovascular Perfusionist)

A perfusionist is a highly skilled allied health professional trained and educated as a member of the open heart surgical team who is responsible for the selection, set-up, and operation of a cardiopulmonary bypass pump (heart-lung machine).

Supply/Demand

There are currently **58 perfusionists** in BC, but the number of productive hours associated with the occupation has been increasing steadily since 2010.[68] Perfusionists work at a small number of surgical locations in BC. Three health authorities and Providence Health identified perfusion as a priority profession.

Perfusionist FTEs have increased in BC since 2010 (Figure 1), with the pattern showing larger increases every two years, which may be due to the schedule of training programs.

In recent years, growing perfusionist numbers have coincided with reductions in the percentage of the workforce over age 55 (Figure 2). This has reversed a trend in the opposite direction that occurred between 2008 and 2012.

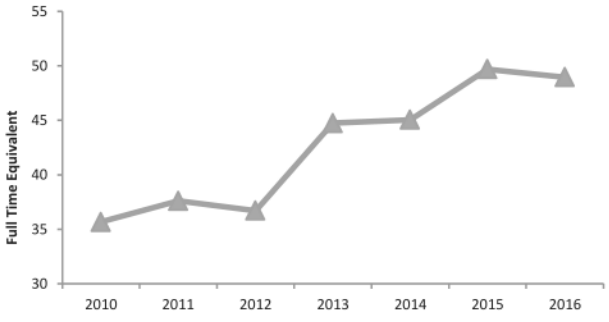


Figure 1: Perfusionist FTE - Health Authorities Only (Source: HSCIS)

Despite the increases in FTEs, perfusionists recorded more 'productive' hours per FTE on average than other nursing and allied health professionals (Figure 3). This suggests more overtime and on-call work, evidence that perfusionist services are in high demand.

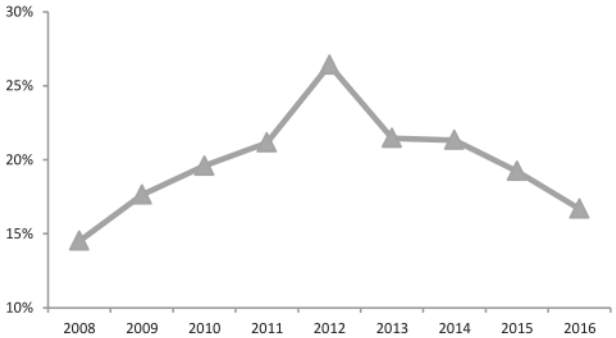


Figure 2: Percentage of Perfusionist FTE over Age 55 - Health Authorities Only (Source: HSCIS)

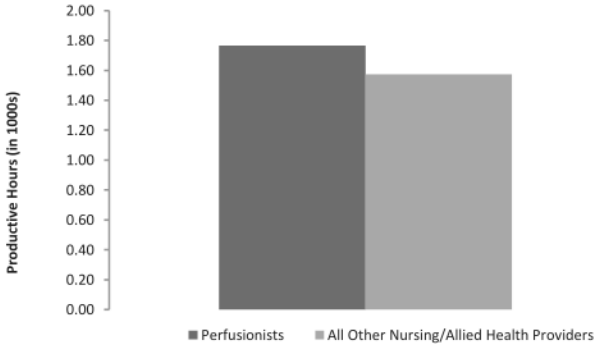


Figure 3: 2016 Average Productive Hours per FTE - Health Authorities Only (Source: HSCIS)

[68] HSCIS 2016

With small numbers overall and a critical role to play, even one perfusionist vacancy can be disruptive – often representing **25% of the workforce** in a given location. While perfusionists are employed predominantly in the Lower Mainland, the impact of a perfusionist supply imbalance is provincial in nature, as they provide an essential provincial service.

Labour Market Issues

Education and Training

Canada has only three schools that train perfusionists: the BC Institute of Technology (BCIT), the University of Toronto, and the Michener Institute (Toronto). BCIT relies on clinical perfusionists to deliver courses, which has caused difficulty in faculty recruitment and retention.

BC Children's Hospital (BCCH)

Pediatric cardiac surgery requires additional specialization and is only performed at BCCH. BCCH has faced ongoing challenges in recruiting and retaining perfusionists, as working in a pediatric hospital requires additional skill training and development. BCCH continues to rely on locum perfusionists to ensure service delivery.[69]

Competition within BC

. According to one health authority, due to the limited supply and consistent vacancies, perfusionists are easily able to find a new employer without moving very far. This contributes to a relatively high turnover rate (18%) in Providence Health.

Provincial Priority

Perfusionists have been identified as a priority profession due to the importance of the service and the degree of difficulty in recruitment. They require highly specialized education and training, and are key members of open heart surgical teams. Maintaining adequate supply of perfusionists aligns with the Ministry's priority of ensuring timely access to surgical services.

[69] From Fact Sheet "Perfusionists in BC" 2017.

Anesthesia Services

Anesthesia services are most commonly provided during surgery, however, they can also be provided during childbirth and to help manage acute or chronic pain. Several health care professions can provide anesthesia services to patients including anesthesiologists, anesthesia assistants (AAs) and family physicians with advanced anesthesia skills. All have different roles within the care team and scopes of practice.

Supply/Demand

The workforce planning process has identified some potential gaps for professions who provide anesthesia services.

Anesthesiologist: In 2015/16, **529** anesthesiologists (**451.4 FTE**) provided services to British Columbians in the publicly funded health system. Two health authorities have identified anesthesiologists as a priority profession. Between 2011/12 and 2015/16, anesthesiologist FTEs increased by 14.2%.

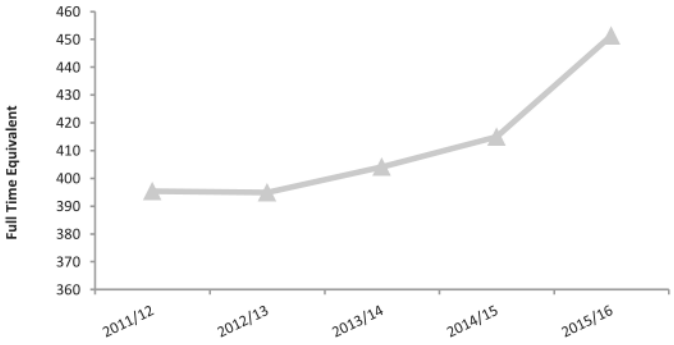


Figure 1: Anesthesiologist Provincial Supply (Source: MSP/APP)

Anesthesia Assistant (AA): An anesthesia assistant is a specially trained health provider who participates in the care of the stable surgical patient under the supervision of the anesthesiologist. In 2016, there were **78 AAs (57.7 FTEs)** in the province. The average number of AA FTEs in BC from 2010 to 2013 was approximately 12.6. This profession quadrupled in 2014 and has increased another 30% from 2014 to 2016. This is a result of AA's becoming more defined in the data when they received their own classification under the collective agreement in 2013.

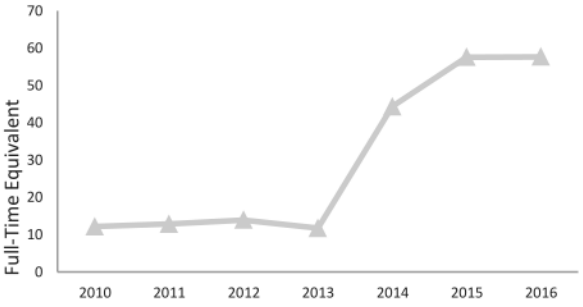


Figure 2: Anesthesia Assistant Provincial Supply (Source: HSCIS)

The scope of practice and demand for AAs is evolving in BC and nationally. Three health authorities identified AAs as a priority profession. The gap between supply and demand is expected to widen due to the aging population and associated rise in surgical procedures.[70]

Family Physician (FP) with enhanced skills (anesthesia): Several health authorities identified FPs with anesthesia enhanced skills as a priority, specifically in rural areas of the province.

[70] Retrieved from http://michener.ca/program/anesthesia-assistant/ November 30, 2015.

Health authorities are working to find efficiencies in the way surgical services are provided. However, the demand for anesthesia services is expected to increase as health authorities increase surgical volumes in order to meet provincial surgery wait time targets.

Labour Market Issues

Compensation Model for Physician Provided Anesthesia

All existing physician payment models have pros and cons. Alternate Payments can cover a range of deliverables, services and tasks and is often used to facilitate recruitment while Fee for Service is good for volume based work, however, it does not consider many activities that Anesthesiologists may provide outside the operating room and contributes to discouraging larger departments from recruiting to ensure adequate income for existing physicians.

Emergence of Anesthesia Assistants

The inclusion of AAs on the anesthesia care team is relatively new (substantial growth in 2014) and has mostly occurred opportunistically, as opposed to strategically and in a coordinated fashion, across several health authorities. They are still an emerging profession, being utilized in a variety of different ways and are presently unregulated.

Recruitment/Retention of AAs

Health authorities cited several challenges that contribute to difficulties recruiting AAs, including: competition across health authorities/hospitals for recruitment, small number of training spaces in one provincial program, high cost of living in urban centres with hospitals that utilize AAs.

Education – Postgraduate Medical Education

Anesthesiology (RCPSC) residency positions have increased from eight entry-level positions in 2003 to ten in 2017.

Provincial Implications

Anesthesia services play several important roles within the health system. Perhaps most importantly, anesthesia is integral to the provision of surgical procedures. Timely access to anesthesia assists in alleviating wait times for surgery, which has been identified as one of the Ministry's strategic priorities. Anesthesia is also necessary for the effective management of various types of pain, such as during childbirth, contributing to ongoing demand.

IV. Mental Health and Substance Use

The vision of Integrated System of Care Target Operating Model is for the regional health authorities to establish and develop specialized community services programs (SCSP) for individuals with moderate to severe mental health, substance use and concurrent mental health and substance use disorders or conditions to achieve meaningful health outcomes and a quality service experience[71]. The SCSP may serve one or more primary care network (PCN).

The SCSP services will include, at minimum, emergency and triage services, clinic-based services, home-based community outreach services, assertive outreach services and rehabilitation, recovery and residential treatment services based on the needs of the population. It either directly provides, or has linkages to, acute and tertiary care services. The SCSP will provide the following functions: urgent response, case finding and screening, consultation to assigned PCNs, intake and initial assessment, immediate and short-term supports and specialized team-based care.

All MHSU care will be provided and/or coordinated by a most responsible clinician through an interdisciplinary team. The interdisciplinary team participates in collaborative planning and delivery of care with the PCN, provincial specialized MHSU services, specialists, NGOs and community service providers, First Nations organizations, and/or social services provided by other government ministries. Interdisciplinary care teams will provide wrap-around, person-centred care using available health workforce resources, optimized scopes of practice and, where necessary and appropriate, virtual care to achieve service objectives. As part of the planning process, MHSU was identified as a service/population area with workforce gaps and challenges in need of provincial level attention. In addition to the priority professions listed below, a number of other providers were identified by health authorities. While these providers did not meet the criteria to make the priority professions list, they are highlighted in this section as members of an interdisciplinary team providing services to the MHSU population. Based on the population served, interdisciplinary care teams will be comprised of, but not limited to, the following health care providers (the blue bolded professions are on the priority professions list for 2018/19):

- **Psychiatrist**
- **RN in Mental Health (Specialty Nurse)**
- **Occupational therapist**
- Psychologist
- Social worker
- Clinical counsellor
- Trained peer support
- Pharmacist
- Nutritionist
- Naturopathic medicine
- Recreation therapist
- **Family physician**
- **Nurse practitioner**
- **Physiotherapist**
- Music and art therapists
- Spiritual services
- Traditional Chinese medicine and acupuncturists
- Cross-cultural liaison
- Vocational experts
- Staff with expertise in public health
- Staff with expertise in psychosocial rehabilitation

[71] General Policy Directive, Specialized Community Services Program for Mental Health and Substance Use. September 2017.

Psychiatrist

Psychiatrists comprehensively assess a patient in order to diagnose and prepare a treatment plan for the care and rehabilitation of patients with mental illness, emotional and behavioural disorders. Psychiatrists use a combination of biological, psychological and social treatment modalities. Psychiatry is the branch of medicine concerned with the biopsychosocial study of the etiology, assessment, diagnosis, treatment, and prevention of mental, emotional, and behavioral disorders alone or as they coexist with other medical or surgical disorders across the lifespan.

Supply/Demand

In 2015/16, **836 psychiatrists (702.5 FTE)** provided services to British Columbians in the publicly funded health system. As part of the workforce planning process, five health authorities identified psychiatrist as a priority profession.

PHSA has suggested that demand for psychiatrists may increase as BC MHSU Services are moving to a new centre. The workload for PHSA psychiatrists is expected to increase as they take on new work with Corrections patients.

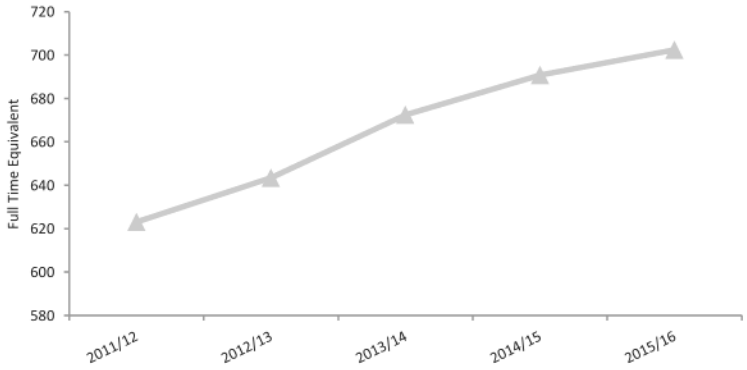


Figure 1: Psychiatrist Provincial Supply (Source: MSP/APP)

Labour Market Issues

Recruitment/Maldistribution

According to health authority submissions, psychiatrists are difficult to recruit to certain geographic areas of need (e.g. downtown east side of Vancouver and rural communities). Despite aggressive recruitment activities, it has proven difficult to cover service needs in major centres, particularly for hospitalized and geriatric patients. There is often inconsistent coverage in smaller, rural and First Nations communities.

There is a maldistribution of psychiatrists at the health authority level, with almost half (49.5%, 415 of 836 headcount) of the psychiatrists in BC located in Vancouver Coastal Health Authority. At the community level, maldistribution becomes more evident as approximately 45% of BC communities (40 of 89) do not have a local psychiatrist. Psychiatrists are clustered in urban communities: Vancouver - City Centre has 155, Greater Victoria has 83, Vancouver – Westside has 82 and Vancouver – Midtown has 70. Of the communities with a psychiatrist, approximately 40% (20 of 49) have less than 1 FTE per 10,000.[72]

[72] Data source: MSP/APP 2015/16. Ministry of Health.

Remuneration/Compensation
Health authorities note that sessional payments are considered low compared to fee-for-service remuneration. In addition, sessional rates can only be utilized for clinical duties, often leaving psychiatrists unable to claim administrative costs (e.g. travel, administrative support and/or overhead costs).

MHSU, Primary Care and Seniors Care
Interdisciplinary care teams are expected to provide full service primary care to individuals. With the increase in patient medical homes, urgent care centres and community health centres, there is expected to be an increased demand for psychiatrists.

Provincial Implications

Mental illnesses can increase the risk of other health conditions and conversely, many health conditions can increase the risk of mental illness. It is important to ensure that there is sufficient psychiatrist capacity across the province to contribute to improving people's mental and emotional health. Psychiatrists have a role to play in assisting family physicians to provide mental health support to the mild to moderate mental health population and direct care to the moderate to severe mental health population.

Other MHSU Professions

Several health authorities identified the following professions as a priority within their health authority within the context of MHSU services. Gaps and challenges are included for these professions; however, they did not meet the criteria to become provincial priority professions. They are included because professions within MHSU services emerged as a consistent theme throughout health authority submissions.

Supply/Demand

Social Worker: Social workers help individuals, families, groups, communities and organizations develop the skills and acquire the resources they need to enhance their social functioning and well-being. They typically look beyond illness and treatment issues, to consider the broader human, social and political issues in mental health with the goal of creating supportive environments for clients; advocating for adequate service, treatment models and resources; challenging and changing social policy to address issues of poverty, employment, housing and social justice; and supporting the development of preventive programs.

Psychologist: Psychologist practices include the principles of understanding and influencing behaviour; the construction, administration and interpretation of tests and assessment s; and various methods of interacting with and influencing their patients. Productive hours worked by psychologists within the health system increased by only 3.5% between 2010 and 2016 and have been in a downtrend since 2014.

Clinical Counsellors: Clinical Counsellors help people with stress management, anxiety and depression, trauma, chronic pain, major life changes and addictions. The use of this occupation in the provincial health system increased 108% between 2010 and 2016.

Mental Health Nurses: Mental Health Nurses conduct physical and psychosocial rehabilitation assessments; develop, implement, evaluate and modify individualized strength-based treatment

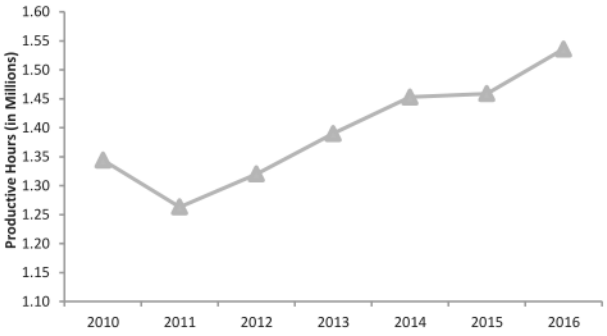


Figure 1: Social Worker Provincial Supply - Health

Figure 2: Psychologist Provincial Supply - Health Authorities Only (Source: HSCIS)

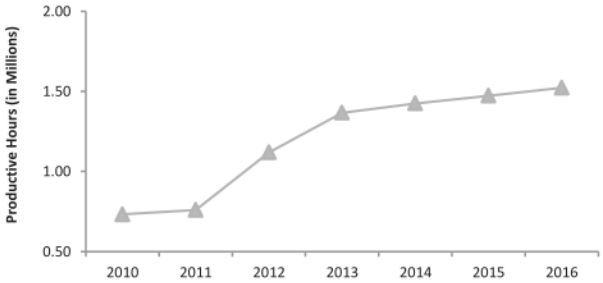


Figure 3: Clinical Counsellor Provincial Supply - Health

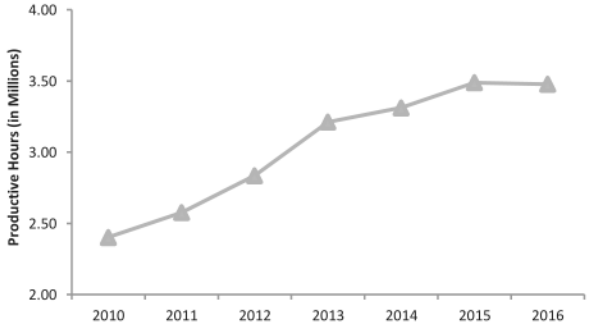


Figure 4: Mental Health Nurse Provincial Supply - Health Authorities Only (Source: HSCIS)

plans; establish, maintain and enhance therapeutic relationships; administer prescribed medicines, monitor client response and provide ongoing in formation to the client and family on activities of daily living, use of medication and side-effects and integration of illness to their lifestyle.

Family Physicians (FP) with Mental Health and/or Addictions Training: Family physicians are typically the first point of contact for people seeking health care and often assist people with mental health and/or substance use issues. A FP with mental health and/or addictions training often maintains a family practice clinic in addition to providing mental health and/or addictions services.

Addictions Counselor: Addictions counselors have been identified as a priority profession by the FNHA for treating problematic substance use among First Nations and Aboriginal/ Indigenous people, who experience higher rates of substance use than the non-Aboriginal population. Addictions counsellors help substance use patients address their addictive behaviour, learn coping mechanisms, identify their triggers and guide patients towards recovery. Trauma informed practise and cultural safety and humility training are fundamental in appropriate delivery of these services.

The demand for professions that providing MHSU services is expected to increase as interdisciplinary MHSU care teams are developed and MHSU Specialized Community Services Programs are implemented across the province. The newly formed Ministry of Mental Health and Addictions will highlight the need for a clear health workforce strategy to respond to the opioid health emergency as well as an enhanced commitment from government to address mental health and/or substance use issues in society. Since December 2016, more than 20 overdose prevention sites have been established and additional supervised consumption services are being planned.

In addition, mental wellness and substance use are priorities for many BC First Nations[73]. In their planning submission, FNHA indicated that, beyond the roles and professions listed above, maintaining culture, language and tradition helps contribute to improved mental health. They place an emphasis on the need to focus on mental wellness promotion, mental illness prevention and upstream service provision. See the First Nations and Indigenous Health section for more details.

Labour Market Issues

Current and Anticipated Vacancies

Psychologist – positions are often part-time contributing to difficulties hiring in certain communities.
Social Worker – Masters prepared social workers with experience/interest in health care can be difficult to recruit. Social workers are linked to several provincial health system priorities and health authorities are anticipating a shortage across several service areas.
Mental Health Nurse – upcoming retirements and changing workforce demographics contribute to current and expected vacancies.

Competition with Other Jurisdictions/Services/Private

Psychologist – health authorities note that BC sometimes loses employees to other provinces for higher salaries and that psychologists can often receive more pay in the private sector.

Several of the professions that work in MHSU services also work in other service areas and can be privately employed. Flexibility does not always exist for people employed in one service area to work in other service areas. Private practice sometimes requires a different scope of practice, provides higher

[73] http://www.fnha.ca/what-we-do/mental-wellness-and-substance-use, accessed September 1, 2017.

compensation and benefits packages, and can have a more positive work culture with a consistent schedule that is often 9-5, Monday to Friday.

Nature of the Population

Mental Health Nurse and Social Worker – The increasing acuity of patients in MHSU settings, the increase in admissions and the nature of the population contributes recruitment and retention challenges.

Education

MHSU providers should deliver culturally safe trauma-informed care, including suicide prevention and rapid crisis response, to all British Columbians, including First Nations communities. In addition, all health care providers should be able to identify people with MHSU illnesses in order to refer and/or treat them more effectively. The Ministry will work to ensure appropriate training and education is available to the MHSU workforce.

Provincial Implications

Mental illnesses can increase the risk of other health conditions and conversely, many health conditions can increase the risk of mental illness. There is a growing awareness of the importance of mental health, mental wellbeing and the need for mental health services across many sectors of society, which will increase demand for MHSU services into the future. Further, the ongoing opioid overdose crisis in BC highlights the need for increased substance use and addiction services. The MHSU workforce has a role to play supporting family physicians to provide mental health support to the mild to moderate mental health population and direct care to the moderate to severe mental health population. Ensuring BC has an adequate MHSU workforce providing patient-centred team-based care in primary and community care settings is critical to maintaining a healthy population and preventing hospital congestion.

V. Cross-system Priority Professions and Service Areas

In addition to those professions and service areas that align with the Ministry's strategic priority areas, there are a number of identified professions at a provincial level that were identified through the planning process including:

Diagnostic Medical Sonographer (Sonographer)

Diagnostic medical sonography, commonly known as ultrasound, uses high-frequency sound waves to examine the developing fetus, heart, abdomen, pelvis, and blood vessels. BC employs two categories of sonographers: general and echo-cardiac. Sonographer is an unregulated profession in BC; their employment spans the public and private sectors.

Supply/Demand

In 2016, there were approximately **539** general diagnostic medical sonographers (326 FTE) and 78 echo-cardiac sonographers (44 FTE) who provided service in the public health care system.

Labour Market Issues

Private Sector/Other Jurisdictions

Approximately 50% of outpatient ultrasound services are performed in Community Imaging Clinics (privately owned outpatient diagnostic ultrasound facilities permitted to bill the Medical Services Plan for approved services). Health Authorities cite higher wages and flexible work environments in the private sector as the main sources of competition for sonographers. Other public jurisdictions in Canada also provide higher compensation than BC.

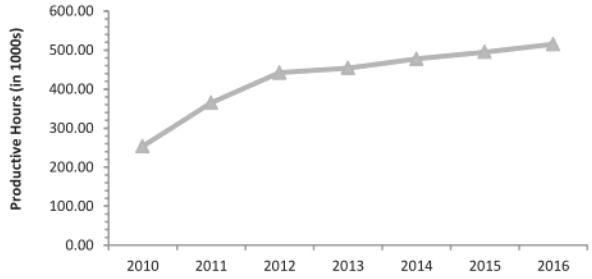


Figure 1: Sonographer (General) Provincial Supply – Health Authorities Only (Source: HSCIS)

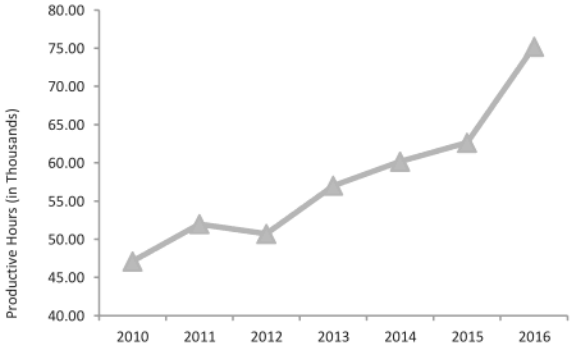


Figure 2: Sonographer (Echo-Cardiac) Provincial Supply – Health Authorities Only (Source: HSCIS)

Illness/Injury rates

Sonographers experience high rates of work-related musculoskeletal disorders (WRMSD) due to the repetitive nature of the movements, with WRMSD causing absence from work, and sometimes long-term disability or career-ending injury.[74] Figure 3 shows the percentage of sonographers between 2010 and 2016 who filed claims with the Workers' Compensation Board (WCB) due to injury, compared to other medical technicians. The chart shows a sharp and steady increase in claims by sonographers from 2010 to 2013. Though the percentage declined from 2013 to 2015, it once again increased in 2016. In comparison to other medical technicians, a higher percentage of sonographers have filed for WCB every year since 2011.

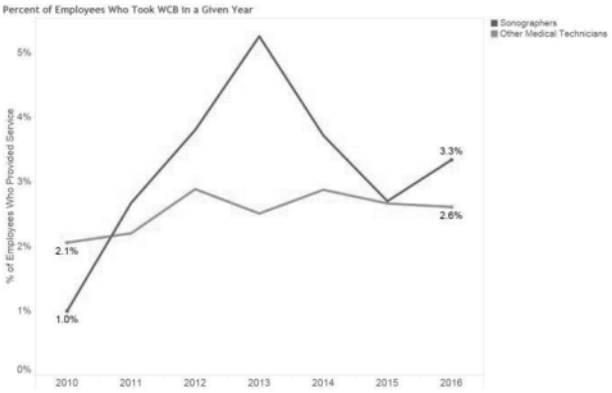


Figure 3: Percentage of Employees Claiming WCB 2010 – 2016 (Source: HSCIS)

Distribution

Health authorities cite recruitment and retention challenges in rural and remote communities. For example, Northern Health (NHA) notes that new grads are reluctant to work in isolated rural communities, and Island Health (VIHA) has indicated challenges in attracting new graduates to Vancouver Island. NHA has begun to offer northern residents tuition credits on the condition they return to the north. NHA and VIHA have also begun targeting students in rural communities in other provinces, as BCIT graduates tend not to return or relocate to the north or Vancouver Island.[75]

Demographics

Health authorities report that the demographic distribution of sonographers at some sites presents challenges, as many full time sonographers are being lost to retirement and maternity or parental leave. In addition, there is a preference for part-time employment, which may be related to the ability to pick up work at Community Imaging Clinics.[76]

Education/Training

BCIT currently provides training for 32 regular full-time sonography students and offers a separate fast-track online program which cross trains an additional 16 x-ray technicians (48 students in total). The College of New Caledonia in Prince George announced in February 2017 the creation of a new sonography program, offering training in general sonography. The program plans an intake of 16 students in September 2018.[77]

Provincial Implications

BC's public system is challenged to meet the demand for ultrasound exams, creating wait lists that have the potential to impact patient care. The demand for ultrasound exams is growing due to their medical usefulness, the aging population and technological improvements. Further, it is estimated that a single

[74] Harrison and Harris. Work-related musculoskeletal disorders in ultrasound: Can you reduce the risk? https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4760593/

[75] HEABC: Addressing BC's Diagnostic Medical Sonography Issue – Proposed Strategic Approach pg. 18

[76] HEABC Briefing Note "Addressing the Sonography Supply Issue, January 18, 2017

[77] Fact Sheet "Diagnostic Medical Sonography", 2017.

FTE sonography position can be expected to perform approximately 2050 ultrasound exams per year, meaning even low vacancy rates can have a large impact on the ability of the health system to provide these services.

Paramedic (Emergency Medical Assistant)

The term Emergency Medical Assistants encompasses a set of health care practitioners who provide emergency patient care. A paramedic is an EMA who provides pre-hospital and out of hospital care as well as inter-hospital transfers. Paramedics provide emergency patient care 24 hours a day, seven days a week, 365 days a year throughout BC.

There are six levels of EMA licences in BC:

- **First Responder (FR)**
- **Emergency Medical Responder (EMR)**
- **Primary Care Paramedic (PCP)**
- **Advanced Care Paramedic (ACP)**
- **Critical Care Paramedic (CCP)**
- **Infant Transport Team (ITT)**

Supply/Demand

There are six levels of EMA licenses, four of which are paramedics: primary care paramedic, advanced care paramedic, critical care paramedic and infant transport team.[78] BC Ambulance Service (BCAS) is managed by BC Emergency Health Services (BCEHS) and falls under the jurisdiction of the PHSA and, as the sole public employer of paramedics in BC, is responsible for staffing, deployment, and compensation. Recruitment and retention can be challenging as the majority of paramedics are employed on a casual basis and there are limited full-time positions in rural and remote communities. Demand for paramedics is increasing, resulting in ambulance wait-times in some areas of the province.

In 2016, there were **2,126 FTE** (approx. **3808 headcount**) in the public health care system. Figure 1 shows a significant increase in the number of productive paramedic hours that were funded over the past three years.

Labour Market Issues

Opioid Health Emergency – Overdose Response

Paramedics, Emergency Medical Responders, and First Responders play a vital role in the current opioid health emergency.

Training and Licensing

Access to training programs in rural areas and limited preceptorship opportunities are determining factors in available supply of paramedics in BC.

Private Industry/Employment Model

Increasingly, trained paramedics are opting for employment in industry (e.g. oil fields and private medical services) over

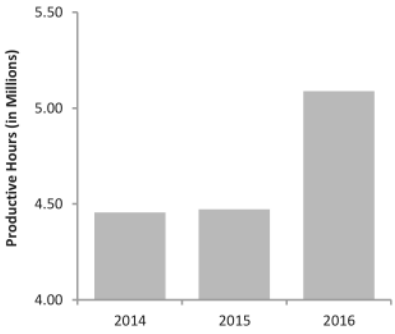


Figure 1: Paramedic Provincial Supply - Health Authorities Only (Source HSCIS)

[78] Ministry of Health website, Licensee Categories, retrieved August 16, 2017: http://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/partners/colleges-boards-and-commissions/emergency-medical-assistants-licensing-board/emergency-medical-assistants-licensing-branch

opportunities within the publicly funded health system - an analysis of ministry data shows that 24.6% of EMAs holding current licenses work for BCAS[79]. This may be a result of BCAS current employment model, which does not encourage full-time employment.

Psychological Health and Safety – Stress and Injury
EMAs face unique psychological challenges, including health issues related to critical incident stress, cumulative job-related stress, post-traumatic stress disorder (PTSD), burn out and injury.[80]

Provincial Implications
Supply imbalances of paramedics can result in increased wait time for an ambulance and delayed transfer to the hospital, which may impact the severity of damage sustained from an injury or health episode. Furthermore, a gap in paramedics in the community can increase pressure on hospital emergency departments as patients may admit themselves, instead of being treated on the scene and discharged by a paramedic. Increasing supply of paramedics to reduce ambulance wait times and pressure on emergency departments is a priority for government.

Dermatologist

Dermatologists specialize in diagnosing and treating patients with diseases and concerns of the skin, hair, and nails. Dermatologists perform specialized diagnostic procedures, skin surgery, and use a variety of other treatment methods. Dermatology is the branch of medicine concerned with the study and clinical management of the skin, its appendages and visible mucous membranes, both in health and disease.

Supply/Demand

In 2015/16, **65** dermatologists (**56.6 FTE**) provided services to British Columbians in the publicly funded health system. As part of the workforce planning process, three health authorities identified dermatologists as a priority profession.

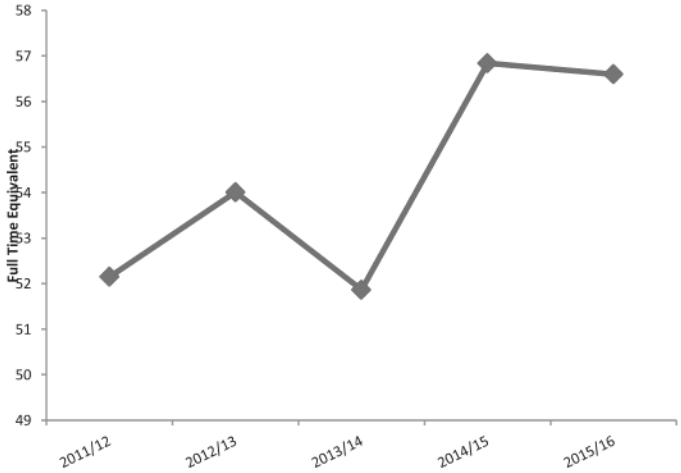


Figure 1: Dermatologist Provincial Supply (Source: MSP/APP)

Labour Market Issues
Recruitment
Island, Northern and Fraser Health Authorities suggest that dermatology vacancies can be difficult to fill for multiple years.

Competition with Private Practice
Island Health cites that dermatologists

[79] Ministry of Health Emergency Medical Assistants Licensing Branch data, provided August 15, 2017.
[80] BCEHS Frequently Asked Questions Psychological Supports for Employees, retrieved August 17, 2017: http://www.bcehs.ca/about-site/Documents/factsheets/mental-health-supports-for-paramedics-dispatchers.pdf

have the option to establish private cosmetic practices that can be more lucrative than working in public practice.

Training Opportunities
Vacancies restrict the number of training opportunities available for undergraduate medical students that can further contribute to the supply shortage for dermatologists (Island Health).

Maldistribution
In urban communities, there is a larger population base that drives demand for dermatologists and there are more opportunities to supplement workload with a private practice (Northern Health).
The maldistribution of dermatologist in BC is evident at the health authority level where approximately 51% of dermatologists are in Vancouver Coastal. Northern Health currently has no dermatologists. At the community level, dermatologists are clustered in urban areas; there are 25 (headcount) in Vancouver – City Centre and 10 in Greater Victoria. 80% (71 of 89) of BC's communities have no local dermatologist.[81]

Provincial Implications
The skin is the largest organ on a person's body and is susceptible to skin cancer due to accumulated exposure to UV radiation from the sun. Skin cancer is the most common cancer in Canada and cases of skin cancer are increasing. Early detection and treatment of skin cancer can be the key to survival. The current supply issues with dermatologists means that patients currently experience long wait times to see a dermatologist.

Specialty Nursing

A Specialty Nursing practice area is one where the foundational nursing diploma/degree is augmented with additional knowledge, skills, abilities, competencies and experience to perform a specific task and/or function. This includes where a nurse is required to work at a higher level of technical knowledge/skill and/or autonomous practice in delivering higher complexity care. Variation exists among health authorities and educational institutions with respect to the designation of nursing specialties and the requirements for employment in a given area. A list of core specialties include: Critical Care, Emergency, High Acuity, Neonatal, Nephrology, Occupational Health, Paediatric, Perinatal and Perioperative, but other specializations are recognized by employers and training providers.

Supply/Demand
Reflecting the variance in category and description of specialty nursing, provincial data systems are limited in their ability to provide a precise picture of British Columbia's specialty nursing (SN) workforce. The number of registered nurses practicing in areas normally associated with specialization, however, provides an approximate figure and indicator of provincial workforce trends.

[81] Data source: MSP/APP 2015/16. Ministry of Health.

Health authorities continue to point out gaps between supply and demand for nurses with specialist training and experience.

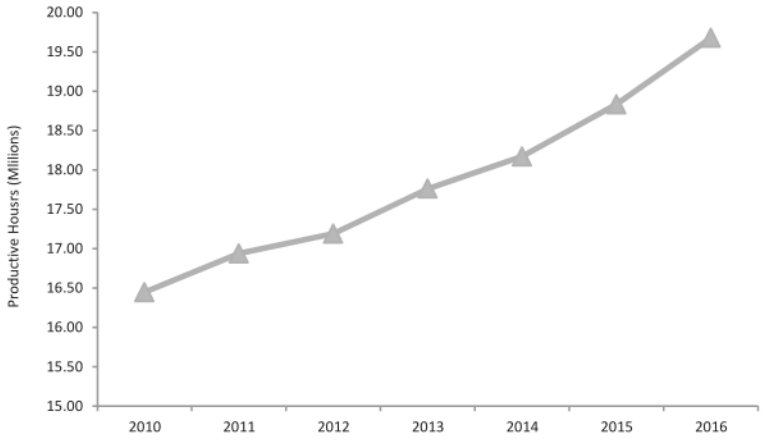


Figure 1: Specialty Nurse Provincial Supply – Health Authorities Only (Source: HSCIS)

Health authorities identify perioperative RNs (including RNs in the operating room – OR), Critical Care RNs, Emergency RNs, and Perinatal RNs as the highest need. Due to variations between provincial and health authority SN data classifications, separate projections for each nursing specialty, with the exception of RNs in OR (See surgery section), is outside of the scope of the forecasting methodology used for this year's planning cycle.

Labour Market Issues

Workplace Health and Wellness

Providence Health Care cites that there is little incentive for RNs to work in specialty areas in general due to "high stakes" and "high stress" work environments, as compensation for specialty nurses is the same as general duty nurses.

Maldistribution

Rural and remote recruitment is a challenge in both rural and urban areas of the province. Recruitment in Vancouver is difficult due to high cost of living - specialty trained nurses are in high demand so they can choose where they live and work.

Education/Training

Health authorities presently access specialty nurse education through post-secondary institutions in BC and Alberta, programs delivered in-house, and online. The British Columbia Institute of Technology (BCIT) is the primary public post-secondary institution delivering education for the core nursing specialties in BC. Three year funding was allocated to provide an additional 1333 FTEs beyond BCIT's annual baseline of 389 FTEs between 2016/17 and 2018/19. As of January 2017, BC had a total of more than 1150 students enrolled in all modes of specialty nurse training.

Despite the interest and investment to standardize specialty nursing, variations in educational requirements for practice and the disconnect between health authority and provincial level planning processes make it difficult to achieve alignment between education and workforce needs which support flexibility and portability for nurses who want to work in specialty areas across the province.

Indigenous Health

First Nations and Indigenous/Aboriginal people have unique health workforce considerations: building and maintaining a culturally safe, humble and trauma-informed workforce; integrating traditional healers, Elders, and knowledge keepers into health programming; and building interdisciplinary teams. Service areas of importance include mental health and wellness, nursing, maternal child care and oral health.

Social Determinants of Health

Health workforce planning needs to be considered through the specific lens of the direct and indirect experiences Indigenous people in BC. In order to improve cultural safety and trauma informed work, it is essential to bring awareness to the Indigenous specific social determinants of health.

There is a disproportionate impact of the social determinants of health on Indigenous people in BC; this includes direct and indirect experiences of colonialism, racism, residential school experiences, and land appropriation which continue to impact people's everyday lives, often in an inter-generational way.

Social determinants of health include: income, social status, education, gender, sexuality, race, employment and working conditions, access to appropriate health services, housing and physical environments.

Health care providers must provide culturally safe and trauma-informed care and create a respectful environment where Indigenous individuals and families feel safe accessing care when they need it. It is also important to recognize that action on all determinants of health in an effort to improve the wellness of Indigenous people resides primarily *outside* of health care system – health and wellness must be promoted in a holistic and culturally relevant way.

Indigenous HHR

Indigenous people access care across the entire BC health system. In providing quality health care to Indigenous people, the health workforce must have the skills to meet their needs. This workforce spans multiple employers and regions and includes independent health providers. The regional health authorities and PHSA have a broad mandate to provide health care services to all Indigenous people in the province, while the First Nations Health Authority (FNHA) has a more specific mandate to be a partner to First Nations in BC. In addition, there are 203 First Nations communities who act as independent employers for health services. This creates a complex landscape for planning and implementation of health workforce strategies to meet the needs of First Nations and Indigenous/Aboriginal people.

Service Areas and Professions of Need

Nursing

Remote Certified Practice Nurses is one of FNHA's biggest priorities. There is a continued need for registered nurses with remote nursing certification to serve rural and isolated First Nations communities. In remote communities where there is no resident physician or nurse practitioner, but where physicians or nurse practitioners visit the community periodically and are available to provide

consultation to the registered nurse, the role of a Remote Certified Practise Nurse is integral to the primary and acute care needs of many Indigenous patients. Geography, weather and distance from hospital contribute to the challenges of the health workforce.

There are limited spaces in the remote certification program, making increasing the number of Remote Certified Practise Nurse challenging. FNHA has worked with UNBC to increase the number of seats available to nurses working in First Nations communities to become of remote certified.[82] Because of this collaboration there are now 6 seats available in September and 6 seats available in January of each year. This includes nurses working for FNHA and nurses who are directly hired by a First Nation that provides primary care treatment within the Remote Certified Nurse Scope of Practice i.e. Iskut and Xeni Gwet'in.

The overall goal of FNHA is to support all First Nations to employ nurses in their communities throughout BC. Macleod et al. (2017) report indicates that the direct proportion of the nursing workforce in Canada is declining in proportion to the increasing population in rural and remote communities in Canada.

Oral Health

Oral health is essential to overall health and wellness yet there is evidence of significant unmet oral health need among Indigenous people in BC.[83] FNHA cites dental issues as the top reason for hospitalization of BC residents living on-reserve. Incorporating oral health services and linkages to the primary care home model is an initiative of FNHA, where oral health services are situated within First Nation's Health Centres.

FNHA identified a lack of dentists, dental therapists and certified dental hygienists to serve the communities close to home with recruitment/retention, training and compensation as challenges for oral health professionals.[84] Currently, there is no Canadian education program to train **dental therapists** – FNHA anticipates a gap in the availability of these professionals who can provide prevention and therapeutic services to a population with a high need. FNHA also cites difficulty in recruiting **dentists** to rural and remote communities. In addition, First Nations Health Benefits payments for dental services are lowers than the BC Dental Association fee guide amounts, providing less of an incentive for dentists to provide these services. Furthermore, there is a lack of Indigenous dentists.

Maternal and Child Health

Maternal, child and family health providers must ensure that Indigenous people in BC receive effective, efficient and empathetic care that honours the diversity of community, family, individual customs, values and beliefs. Planning must be well-grounded and include action across the continuum of health care, including planning for interdisciplinary teams of midwives, primary care providers, doulas, nurses and allied health providers to provide quality and culturally safe maternity services.[85]

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[82] FNHA submission

[83] Healthy Smiles for Life: BC's FN and Aboriginal Oral Health Strategy, March 2014. Retrieved September 12, 2017 from: http://www.fnha.ca/wellnessContent/Wellness/FNHA_HealthySmilesforLife_OralHealthStrategy2014.pdf.

[84] FNHA Submission

[85] First Nations Health Authority, BC First Nations and Aboriginal Maternal, Child and Family Strategic Approach, August 2013. Retrieved September 12, 2017 from: http://www.fnha.ca/wellnessContent/Wellness/BC_First_Nations_and_Aboriginal_Maternal_Child_and_Family_Tripartite_Strategic_Approach.pdf.

Midwife

There is a significant opportunity for midwives to fill the growing maternity care gap in BC, particularly in northern, rural and First Nations communities, resulting in greater access to maternity care and better health outcomes for babies, moms and families. Midwifery is well received in many First Nations communities. Several communities have identified a desire for midwifery services to improve access to local birthing on traditional territory. Midwifery has been identified as a priority service both from FNHA and the Province, as a strategy to bring birth closer to home.

Doula

While doulas are not medical professionals, there is evidence of positive health outcomes and fiscal benefits of investing in doula services.[86] FNHA emphasize the need for more Indigenous/Aboriginal doulas in BC; the majority of doulas in BC are not indigenous and do not have cultural safety and humility/trauma-informed care training as part of their curriculum. Currently only 9% of doulas working with and billing the BC Association of Aboriginal Friendship Centres (BCAAFC) Doula Grant Program identify as Indigenous.[87] Doulas are not distributed evenly across the province; Northern, Interior and Vancouver Coastal regions show lower connection between Aboriginal families and doulas – which may indicated a lower number and/or availability of doulas in the area.[88]

Traditional Health Practises/Holistic Care

As a part of supporting the health workforce to provide quality care, it is vitally important to integrate traditional healers, Elders and knowledge keepers into health planning, as well as Cultural Support Workers and Aboriginal Patient Liaison/ Navigator to meet the unique health care considerations of Indigenous people in BC. Cultural Support Workers advocate for clients' access to care that honors the balance between physical, emotional, spiritual and mental wellness. Aboriginal Patient Liaison/Navigators arrange for translation services, help clients understand health care procedures and terminology, and coordinate inclusion of elders for spiritual and emotional support. They ensure cultural safety in all areas of service delivery. Island Health is calling for increased access to *Aboriginal Liaison Nurses* who are registered nurses that also undertake this role. Overall, there is a need to increase access to traditional healers across the health system.

Issues/Challenges

Data for the Indigenous workforce

With 203 First Nation communities acting as independent employers in addition to FNHA and the regional health authorities, there is a high degree of variability in the organizations employing the health workforce serving Indigenous people. This presents challenges to HHR data to effectively plan and build a workforce to meet the needs of Indigenous people

Recruitment and Retention especially in Rural/Remote Areas

Many First Nations and Indigenous communities are located in rural and remote areas, resulting in the difficulties of recruitment and retention of health professionals to such areas disproportionately affecting First Nations and Indigenous people. The limited availability of seats in courses to provide remote certification for nurses compounds this issue. In addition, Indigenous people have an increased demand for the services of mental health workers, who are associated with high levels of burn-out and attrition.

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[86] FNHA submission

[87] FNHA Submission

[88] FNHA submission

Integration of Traditional Healing and Wellness Workers
Many Indigenous people would like to access traditional healing and wellness as a part of their health care. Meaningful engagement and remuneration of Traditional Healers, along with integration of these practices and practitioners into health care programming presents unique challenges that go beyond availability of workers and other labour market issues.

Indigenous Workers in the Health System
There is a lack of Indigenous health care professionals working in the health system. Moreover, gaps in the available data regarding the current Indigenous health workforce beyond FNHA employees present challenges to analyzing and addressing this shortage.

Availability of Health Professionals with Cultural Safety and Trauma-Informed Skills
First Nations and Indigenous people maintain they experience racism and discrimination in the health system. Ensuring access to culturally safe and trauma-informed health care professionals is vital to building trust between Indigenous people and care providers. While great momentum is building in this area, there is need to enhance availability of training for students in health programming and for the working health professional.

Palliative Care

Palliative care is the health discipline focused on improving the quality of life of people living with serious life-threatening illness. It can be provided by people who specialize in palliative care and others. It takes into account the continuum of care and range of people who need to provide it: friends, families, health care professionals including specialists, home care providers, primary care, social workers and spiritual care. Specialist palliative care is provided by a specially-trained team of physicians, nurse practitioners, nurses, social workers and other health care professionals who work together with a patient's primary care team to provide an extra layer of support for people with serious illness. It focuses on providing relief from the symptoms and improving quality of life for both the patient and the family. Palliative care knowledge and expertise can be embedded into the delivery of care across different health care sectors and professions by healthcare professionals who do not specialize in palliative care.

Supply/Demand
The workforce planning process has identified potential gaps for professions who provide palliative care. Three regional health authorities identified palliative care physicians as a priority physician profession – Fraser Health (GP-Palliative), PHSA (Pain and Symptom Management Specialist) and First Nations (GP-Palliative and Palliative Care specialist).

Palliative Care Specialist: Palliative Care Specialist (Adult Palliative Medicine, Pediatric Palliative Medicine) is a medical subspecialty concerned with the study and advancement, assessment, and medical management of pain, suffering, and quality of life throughout the continuum of life and death for patients with chronic or life threatening illness, and throughout the bereavement of the patients' families.

Pain and Symptom Management Specialist: Pain Medicine is a medical subspecialty concerned with the prevention, evaluation, diagnosis, treatment, and rehabilitation of patients with acute and chronic cancer and non-cancer pain.

Family Physician: Family Physicians can take palliative care skills training. According to the College of Family Physicians of Canada, in 2016, there were **68 family physicians** with a Certificate of Added Competence (CAC) in Palliative Care practicing in BC.

"An approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual." - WHO Definition, CSPCP (March 13, 2017)

Palliative Care Physicians Currently in Practice
Based on data generated by the Ministry of Health Research and Analysis Branch, in 2014/15, there were 2,150 family physicians and 12 specialists who billed for palliative care fee items. For 47 physicians, more than 50% of their income can be attributed to billing palliative care fee items.

Community Health Nurses: First Nations Health Authority identified community health nurses with training/experience in palliative care as a priority.

Labour Market Issues

Knowledge, Skills and Competencies
Knowledge regarding palliative care is often not strong among health care professions resulting in patients with palliative needs not being identified and not provided with palliative care in a timely manner or at all.

Remuneration
Health authorities suggest that the remuneration framework for physicians who provide palliative care contributes to recruitment and retention difficulties.

Service Delivery
Traditionally, palliative care is associated with pain and symptom management for people with cancer who are generally an identifiable population, often in a particular service setting. In contrast, palliative care for people with complex chronic conditions is typically provided by physicians (family physician or specialist) in the course of primary or specialist care, drawing on consultation from more experienced palliative care physicians as needed. Palliative care service for this larger group of people with chronic disease is not well established.

Interior health cites ongoing service delivery challenges of incorporating palliative care into residential care. Other health authorities state the importance of establishing full-time care coordinators, standardizing palliative care quality and improving access to palliative care.

Cultural Safety & Humility
There is an expectation that palliative care providers serving Indigenous patients require cultural safety training.

Provincial Implications

Palliative care services are necessary to ensure quality of life for those with serious life-threatening illnesses and people who are approaching end of life. They are provided by a range health professions in a variety of settings outside of the hospital. These services are predominantly provided to seniors, whose care has been identified as a strategic priority by the Ministry. As BC's population ages, demand for palliative care services from patients and families will increase, along with their importance within the overall health system.

5. Conclusion

Strategic, long range health human resource planning is critical for the BC Health System to meet the current and emerging patient and population needs of the province. At its foundation, the provincial process has been data-driven and collaborative, bringing together the best ideas from across the BC health system to help understand and respond to current and future workforce challenges so that it is able to deliver on its strategic and operational objectives.

This document has captured the outcomes of the planning cycle and has identified a number of key strategies to ensure the education, training, recruitment and retention of health professionals in the province. Over the coming months, the Ministry will be moving forward on the key actions outlined in this document to address the identified HHR needs.

In addition, meaningful progress has been made towards enhancing the BC health system's capacity to plan for the workforce at the system level. The Ministry recognizes the considerable efforts made by the health authorities as well as key partners and stakeholders to strengthen the workforce planning capacity and culture across the system and will be continuing into the future to improve the province's health human resource planning methodology.

Surgical Services Workforce Development: Occupation Based Strategies 10-May-19

s.13; s.17

Occupation	HA Current Supply[1]	HA Vacancies[2]	Other New Demand (PCNs[3], SCSPs)	BC Training: Annual Graduates
Anesthesiologist[4]	541 (HC)	39		11
Specialty Nursing	13,346 (FTE)	640		389
Anesthesia Assistant	62 (FTE)	6		8
Sonographer	381 (FTE)	40		40

s.13; s.17

Actions/Strategies					
Action Type	Action	Timing	Status	Lead	Notes
s.13; s.17					
s.13; s.17					
Education and Training	Provincial review of perioperative education	Medium	Complete	NPS	
Education and Training	New Provincial Nursing Curriculum	Medium	Complete	NPS	
s.13; s.17					
Education and Training	Review of entry to practice competencies and scope of practice for AAs in BC	Short	Complete	WPDB/AEST	
s.12; s.13; s.17					

Occupation	HA Current Supply[1]	HA Vacancies[2]	Other New Demand (PCNs[3], SCSPs)	BC Training: Annual Graduates
Perfusionist	48 (FTE)	1		5
Registered Nurse (RNs)	13,487 (FTE)	544	101	1,500
Licensed Practical Nurses (LPNs)	6,242 (FTE)	107	1	*597 [7]
Physiotherapist	973 (FTE)	101	21	80

s.13; s.17

s.13; s.17

s.13; s.17

s.13; s.17

Actions/Strategies					
Action Type	Action	Timing	Status	Lead	Notes
Education and Training	Surge cohort of 5 students started in January 2018 at BCIT	Short	Complete	WPDB/AEST	Surge Cohort will graduate Dec.2019
Funding and Compensation	MOU - increase in pediatric perfusionst salary	Short	Complete	WCABS	7.5% increase in salary over base wage

s.13; s.17

Occupation	HA Current Supply[1]	HA Vacancies[2]	Other New Demand (PCNs[3], SCSPs)	BC Training: Annual Graduates
MRI Tech[8]	119 (FTE)	5		10
Occupational Therapist	1,038 (FTE)	58	27	48
Dietitian	558 (FTE)	11	15	36

s.13; s.17

Actions/Strategies					
Action Type	Action	Timing	Status	Lead	Notes
s.13; s.17					

MINISTRY OF HEALTH
INFORMATION BRIEFING NOTE

Cliff #1114382

PREPARED FOR: Mark Armitage, A/ADM, Workforce Planning, Compensation & Beneficiary Services Division **- FOR INFORMATION**

TITLE: Interior Health Authority East Kootenay Regional Hospital Anesthesia Services Compensation Options

PURPOSE: To provide an update on compensation measures to secure stabilized anesthesia services for Cranbrook

BACKGROUND:
Interior Health Authority East Kootenay Regional Hospital (EKRH) acts as the referral centre for the smaller communities surrounding Cranbrook, seeing over 22,000 patients per year. Over the last 12 months the Ministry has worked with Interior Health (IH) to provide support for the anesthesia team at EKRH to address both short and long term recruitment issues. Among the efforts applied, the Ministry has supported exceptions such as the restricted use of locum rates in excess of the provincial standards, and the creation of a temporary income-guaranteed 'Out of OR' (OOR) position to help avoid service delivery interruptions during the summer months of 2017. As recruitment efforts to fill both existing and newly created anesthesia positions at EKRH have been yet largely unsuccessful, the hospital continues to experience intermittent service delivery interruptions in the form of cancelled elective surgeries.

The Ministry's earlier support for the short term exceptions carried the condition that a comprehensive long term plan be developed to address the core issues. To this end, IH leads Ministry-attended steering committee meetings focussed on stabilizing services, including improving operational administration and recruitment. Compensation remains a key theme for achieving service stability through locum and permanent recruitment.

DISCUSSION:
Based on planned absences in the EKRH anesthesia team over the next four months, and with the added uncertainty of s.22
s.22 IH is predicting further isolated service interruptions, notably in June and August. Locum recruitment efforts using standard Rural Locum Program rates have achieved at least minimum coverage requirements throughout most of the summer. s.22
s.22 the Ministry is not recommending any compensation-based intervention for the August coverage gap at this time due to anticipated impact on existing summer locum arrangements. The 14-19th June coverage gap differs in nature given it has been precipitated very recently by Ministry-sanctioned attendance at the Canadian Anesthesiologists' Society annual meeting in Montreal to support on-going recruitment efforts. Due to the time pressures and the Ministry's involvement contributing to the coverage gap, intervention to assist in securing locum coverage is deemed appropriate in this instance.

The EKRH anesthesia team is seeking IH and Ministry support to implement the income-guaranteed OOR position, similar to the agreement employed last summer. Whereas in the short term the primary goal is to provide an income support to the anesthesia physicians otherwise accommodating locum placements, the long term goal is to recruit into this position permanently as an integral part of the planned service delivery model. IH suspects the longer term position will never achieve sustainability on Fee-For-Service, but feels the value of service stability and the potential to elicit quality improvement work will outweigh the cost to supplement physician compensation. Permanently staffed, an OOR position has the potential to create value in enhancing the scope of services and level of patient care at EKRH; however the proposed service delivery model requires a minimum of six full time physicians to realize this aim. As the goals of the short and long term OOR positions are dissimilar, the Ministry is creating distinctions between the short and long term contractual agreements in order to help ensure the effectiveness of the future, more permanent, implementation.

The Ministry is also exploring more comprehensive service contract options, despite the challenge posed by the mix of anesthesia specialists and anesthesia-trained general practitioners (GPAs). As the EKRH anesthesia group is not considered a good candidate for the proposed new provincial compensation model for anesthesia at this time, the Ministry is looking at various contractual options within the current framework, including exploring the viability of a non-incentive-based hybrid contract arrangement that would respect the Ministry's position with regard to differentiated compensation for specialists and GPAs, yet still permit the group to offer equal compensation for each of its members.

ADVICE:
The immediate focus at EKRH needs to remain primarily on affecting the operational reform that will help to address some of the key anesthesia recruitment and retention challenges, without unnecessary distractions in the form of alternative compensation models and quality improvement initiatives. The Ministry's efforts in assisting with the stabilization of anesthesia services at EKRH are attempting to strike a balance between EKRH's immediate short term versus long term needs, as well as considering the situation and potential solutions from a provincial perspective.

The Ministry is prepared to repeat a form of the income guarantee from last summer as a short term solution during the recruitment period, and will follow it with a longer term income guaranteed OOR position with more comprehensive service deliverables once the team retains its sixth physician. The Ministry will also encourage the physicians to consider future implementation of a contract arrangement designed to stabilize incomes and support physician retention.

Program A/ADM/Division: Mark Armitage, A/ADM, Workforce Planning, Compensation and Beneficiary Services Division
Telephone: 250-952-3346
Program Contact (for content): Joni Magil, Director Physician Compensation
Drafter: Liana Silver, Senior Manager
Date: May 10, 2018
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MINISTRY OF HEALTH
DECISION BRIEFING NOTE

Cliff #1148139

PREPARED FOR: Mark Armitage, Assistant Deputy Minister - **FOR DECISION**

TITLE: Vancouver Island Health Authority (Island Health) - Pediatric General Surgery and Pediatric Anesthesia

PURPOSE: To seek direction regarding Island Health's funding proposal to support pediatric general surgery and pediatric anesthesia services.

BACKGROUND:

- In order to support a dedicated pediatric general surgery service that continues to serve as a second site in the province for higher complexity pediatric cases, Island Health has requested that two urgent priority items be addressed:
  1) Create a pediatric general surgery Alternative Payment Program (APP) contract for 1.3 FTEs (1.0 FTE for new hire, 0.3 FTE for existing surgeon); and
  2) Establish Medical On-Call Availability Program (MOCAP) coverage for pediatric anesthesia services which are currently delivered through FFS (to support 1).
- The pediatric general surgery program at Island Health has operated as a fee-for-service (FFS) model with most of the work and call based on the availability of one surgeon. Island Health advises there are increasing gaps in coverage and recruitment efforts for a new pediatric general surgeon under the current FFS model have not been successful over the last three years. The overwhelming majority of pediatric surgery positions in Canada are served out of academic centres supported by academic APP contracts and there are more jobs than applicants.
- There would be insufficient FFS billings to fully fund this contract and Island Health advises they do not have any available general operating funds to top up the difference. Island Health is proposing the Ministry of Health (the Ministry) provide the funding needed to cover this difference and for a MOCAP pediatric anesthesia contract to support pediatric surgeries.

DISCUSSION:

- Both a general surgeon and anesthesiologist that provide care to children and adults are required 24/7 to support the Island Health Tier 5 pediatric critical care service.
- Island Health advises there is no interest from their general surgeons in providing pediatric care and recruitment of a second pediatric general surgeon is required.
- Island Health believes an above-range contract model like BCCH (~32% above the general surgery rate range) would attract a new pediatric general surgeon to Island Health.s.17
- When the existing pediatric general surgeon is not available, care for pediatric patients must be delayed or diverted to BCCH. s.17

s.17

s.17 Typically, APP arrangements specify coverage during week day operating hours which allows the annual MOCAP arrangement to be discounted by approximately 25%.

- Island Health proposes that they would partner with BCCH to support on call pediatric general surgery coverage for Victoria and to also support the Victoria surgeons to maintain their competency skills. BCCH supports Island Health's

proposal with the understanding it does not preclude BCCH from independently developing its pediatric program.

- A dedicated pediatric anesthesia group was not part of Island Health's supplied 2019/20 MOCAP proposal. Island Health has voiced concerns about its ability to recruit pediatric anesthesiologists due to the uncertainty of the pediatric general surgery situation and that possible anesthesia service disruptions could result. Victoria General already has two anesthesia call groups, a multipurpose one and a backup.
- There is no new money in the APP or MOCAP budgets to fund this request.
- s.22

s.22 Island Health states it will necessary convert the APP contract to 2.0 FTEs at that time to recruit a second pediatric general surgeon.

- If an APP contract is established, an application could be submitted through the Workload Funding process to fund the expected additional FTE requirement.

OPTIONS:

s.13

Option 2: Support Island Health funding proposal.

a) Island Health to fund the program within its existing communicated operating funding allocation.
b) The Ministry to provide a portion of the new funding required and Island Health fund the remainder within its existing communicated operating funding allocation.
c) The Ministry to provide new funding required (up to a maximum amount).

Pros: Supports sustainability of a second BC site for more complex cases; Minimizes transport to BCCH and the associated patient out of pocket costs.

Cons: Does not consider other priorities or pressures faced in other health authorities; Adds to the significant cost pressures already facing Island Health and/or the Ministry.

s.13; s.17

Approved/Not Approved
Mark Armitage
Assistant Deputy Minister

Nov 18/2019
Date Signed

Program ADM/Division: Mark Armitage, Health Human Resources and Labour Relations
Telephone: 250-952-3519
Program Contact (for content): Evan Howatson, Executive Director, Labour & Agreements
Date: November 7, 2019

Surgical Services Workforce Development: Occupation Based Strategies 02-Aug-19

Occupation	HA Current Supply[1]	HA Vacancies[2]	Other New Demand (PCNs[3], SCSPs)	BC Training: Annual Graduates
Anesthesiologist[4]	448 (FTE)	39		11
Specialty Nursing	13,640 (FTE)	640		389
Anesthesia Assistant	69 (FTE)	6		8
Sonographer	418[5] (FTE)	40		40

s.13; s.17

Actions/Strategies					
Action Type	Action	Timing	Status	Lead	Notes
Education and Training	PGME Expansion	Short	Complete	WPD	2 new first year anesthesiology positions. NOT ANNOUNCED.
s.13; s.17					
Education and Training	Provincial review of perioperative education	Medium	Complete	NPS	
Education and Training	New Provincial Nursing Curriculum	Medium	Complete	NPS	
s.13; s.17					
Education and Training	Review of entry to practice competencies and scope of practice for AAs in BC	Short	Complete	WPDB/AEST	
s.12; s.13; s.17					

s.13; s.17

Occupation	HA Current Supply[1]	HA Vacancies[2]	Other New Demand (PCNs[3], SCSPs)	BC Training: Annual Graduates
Perfusionist	50 (FTE)	1		5
Registered Nurse (RNs)	13,487[7] (FTE)	544	72	1,500
Licensed Practical Nurses (LPNs)	6,242[7] (FTE)	107	1	*597[9]
Physiotherapist	921[10] (FTE)	101	22	80

Actions/Strategies					
Action Type	Action	Timing	Status	Lead	Notes
s.13; s.17					
Education and Training	Surge cohort of 5 students started in January 2018 at BCIT	Short	Complete	WPDB/AEST	Surge Cohort will graduate Dec.2019
s.13; s.17					
Funding and Compensation	MOU - increase in pediatric perfusionst salary	Short	Complete	WCABS	7.5% increase in salary over base wage
s.13; s.17					

s.13; s.17

Occupation	HA Current Supply[1]	HA Vacancies[2]	Other New Demand (PCNs[3], SCSPs)	BC Training: Annual Graduates
MRI Tech[11]	119 (FTE)	5		10
Occupational Therapist	990[12] (FTE)	58	28	48
Dietitian	546[13] (FTE)	11	15	36

s.13; s.17

Actions/Strategies					
Action Type	Action	Timing	Status	Lead	Notes

s.13; s.17

HEABC
HEALTH EMPLOYERS ASSOCIATION OF BC

300 - 2889 East 12th Avenue, Vancouver, BC V5M 4T5 TEL: 604.736.5909 FAX: 604.736.2715
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March 26, 2019

Mr. Paul Straszak
Chief Negotiator & Executive Director of Negotiations
Doctors of BC
115 - 1665 W. Broadway
Vancouver, BC V6J 5A4

Dear Paul:

Re: Anesthesia Template Contract and PMA Increases

I'm writing to advise you that the Ministry of Health will be increasing the contract rates under the anesthesia template contract in order ensure that it remains an economically attractive alternative for fee-for-service anesthesiologists.

The new rates are intended to reflect the value of the 0.5% general increases and the 17% increase to out of office hours premiums provided in the Tentative Renewal Agreement for the PMA. As well, the new rates include an adjustment to reflect the 0.75% ESD increase that went into effect on February 1, 2019.

Subject to ratification of the PMA Tentative Renewal Agreement, the revised rates for the anesthesia contract are outlined below. New rates will go into effect on April 1 of each year.

Hourly Rate/Premium	Template (before PMA incr.)	2019/20	2020/21	2020/21
Level 1	$209.00	$211.61	$212.67	$213.73
Level 2	$219.00	$221.74	$222.85	$223.96
Level 3	$231.00	$233.89	$235.06	$236.23
Evening/Weekends/Statutory Holidays	$100.00	$118.25	$118.84	$119.44
Nights	$135.00	$159.64	$160.44	$161.24

We trust that this will be well received by your members. Please contact me if you have questions.

Yours truly,

Matt Prescott
Executive Director
HEABC Physician Services

cc: Mark Armitage, Assistant Deputy Minister, Ministry of Health
Dr. Curt Smecher, President, BC Anesthesiologists' Society

December 15, 2017

KEY MESSAGES FOR HEALTH AUTHORITIES

Anesthesia Compensation to Support the Provincial Surgical Expansion

- Our goal is to provide better services for people, and that includes better and faster access to the surgeries and procedures that people need.

- In support of this goal, the Health Authorities (HAs), with additional funding from the Ministry, are increasing surgical capacity to reduce surgical wait times for patients.

- The increase in surgical capacity means more work and more opportunities for medical professionals, including anesthesiologists.

- The HAs, Ministry and HEABC are working together in a coordinated way to ensure that the additional anesthesiology services can be secured in a way that is fair for all, while addressing a variety of issues and concerns that have been raised by anesthesiologists.

- We have seen in the past that providing special, one-off deals has not improved care or wait time management.

- All HAs recognize the importance of adopting a common approach are not in a position to negotiate anything outside of the provincial approach.

For background

- Physicians privileged to provide services at a HA are required to participate in fulfilling the organizational and service responsibilities of the Department. When the service delivery needs of the Department changes or increases, the Department must work with the Health Authority to recruit new physicians so that the Department can meet the new service demands.

- The MSP Payment Schedule is designed to be a comprehensive payment modality and is not intended to be augmented with supplemental service contracts, income guarantees or stipends. If current fee codes are seen as insufficient or inconsistent with the way anesthesiologists practice, anesthesiologists should raise these concerns with the Doctors of BC.

- The Alternative Payment Subsidiary Agreement of the Physician Master Agreement (PMA) permits HAs and anesthesiologists to enter into Service Contracts as an alternative to fee-for-service (FFS) compensation at rates set out in the PMA. Service Contracts are not intended to be used to supplement the income of physicians who are compensated on a FFS basis.

Withheld pursuant to/removed as

s.13